

ANCIENT EGYPTIAN EPIGRAPHY AND PALAEOGRAPHY

The Recording of Inscriptions and
Scenes in Tombs and Temples

BY RICARDO CAMINOS

Professor of Egyptology, Brown University



Archaeological Aspects of Epigraphy
and Palaeography

BY HENRY G. FISCHER

Lila Acheson Wallace Curator in Egyptology, The Metropolitan Museum of Art



The Metropolitan Museum of Art
New York

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Preface

The two papers that are the subject of this publication were originally presented at a conference which was held in Cairo from January 5th to 9th, 1975, and which was called "Ancient Egypt: Problems of History, Sources and Methods." The conference was sponsored by the Egyptian Antiquities Organization in collaboration with the American Research Center in Egypt and the University Museum, University of Pennsylvania.

At the moment that these papers go to press it still remains doubtful that the entire conference will be published, as originally planned. If a more comprehensive publication eventually materializes, then this one may be regarded as a premature offprint, which may yet serve a useful purpose, since the subject is rather different from the other papers, all of which are more specifically concerned with history and archaeology. In particular it is hoped that this publication will be of use to young students of Egyptology and will provide some guidance for epigraphic work in the field, and for the interpretation of epigraphic work that has already been published.

Although our orthography and style has, to some extent, been made consistent, this aspect of the editing has been carried no further than has seemed absolutely necessary: no attempt has been made to adopt a uniform spelling of proper names, whether ancient or modern. In all such matters, including the preparation of the list of abbreviations, we have received much help from Janet Thorpe. She and Mrs. J. W. Paspoularides have also assisted in reading the proofs, as has Mrs. W. Magnus.

The authors wish to express their gratitude to Lila Acheson Wallace, whose financial assistance has made the present publication possible.

H. G. F.

The Recording of Inscriptions and Scenes in Tombs and Temples

By RICARDO A. CAMINOS

“Whereas pure scholarship dates rapidly, faithful
copies grow in value according as destruction
exact its relentless toll.” ALAN H. GARDINER.

LET it be understood from the outset that this paper is concerned only with recording which is done for the purpose of publication, and with the end product of it: the article, the pamphlet, the book. The copying of texts and representations in temples and tombs for other ends, such as personal study or the gathering of materials for archives and research centers, will not be considered here. The Editors aptly suggested the inclusion in this paper of a review of the progress made in Egyptian epigraphy during the last one hundred years, and I shall deal with this matter first. For reasons of space I shall have to select ruthlessly and skim the subject; to treat it properly would almost be tantamount to producing an enlarged version of Porter-Moss.

Our *terminus a quo* is 1875, yet I feel I must plead for one exception and refer to an epigraphic achievement prior to that date. In September 1842 Karl Richard Lepsius, aged 32, set foot in Egypt at the head of an expedition sponsored by the king of Prussia. Nine Europeans, including the young leader, made up the staff. They remained three years in the field, constantly engaged in surveying monuments, recording, clearing sites; their researches took them from Alexandria upstream to Sero, in the remote Sennar district, on the Blue Nile. Lepsius himself, with one or two assistants, also visited the Red Sea, Sinai, Palestine, and Lebanon, where more recording was done. Apart from a wealth of antiquities, they brought back to Berlin thousands of paper squeezes and hand copies of inscriptions and reliefs, as well as architectural drawings, sketches, maps,

plans, and fieldbooks cram-full with notes of all sorts.¹ This vast mass of records was prepared for publication with surpassing ability and speed. In 1849, less than four years after the expedition's return from the Middle East, the first fascicle of the *Denkmaeler aus Aegypten und Aethiopien* came out. Publication was completed in 1859: a total of 894 plates forming 12 volumes elephant-folio size—mighty tomes which have been constantly and profitably used since.² It was, and remains, a superb accomplishment which no single or combined expedition to the Nile Valley has matched to date. No publication offers the Egyptologist a vaster, richer, more varied, rewarding and comprehensive quarry of epigraphic sources than Lepsius's great corpus does; and moreover its standards of accuracy, draughtsmanship, and presentation are of the highest order, to the extent that even today, for all our modern gadgets and copying aids, not a few of our own epigraphic publications fall short of them.³

Having made my *proskynema* to the prince of epigraphists, I now proceed to the starting point agreed on. In 1875 Auguste Mariette published a number of drawings reproducing texts and scenes from the Karnak temple.⁴ Arranged in chronological order, they are accompanied by brief notes stating the general tenor of the records and their precise location in the great Karnak complex, and also giving, though not always, their size. The hieroglyphs have indeed been standardized by the modern draughtsman, but only with regard to outline and inner details; their

1. See the brochure K. R. Lepsius, *Denkmäler aus Ägypten und Äthiopien* (Berlin 1849), for a short report on the expedition. For a fuller account see Lepsius, *Letters from Egypt, Ethiopia, and the Peninsula of Sinai* (London 1853); known as the Bohn edition, this is the best edition of his letters and includes an English version of the just-cited 1849 brochure. See also G. M. Ebers, *Richard Lepsius. Ein Lebensbild* (Leipzig 1885), pp. 168 ff.

2. The plates were complemented by 5 volumes (Leipzig 1897–1913) of notes compiled from his papers by Naville, Borchardt and Sethe, and a further supplementary folio volume of drawings (Leipzig 1913). Two reprints of the *Denkmaeler* are currently available, one issued by Biblio Verlag GMBH and Co. (Osnabrück 1970–1972), the other by the Centre de Documentation du Monde Oriental (Geneva 1972–1973).

3. Here I refer to Lepsius's corpus strictly from the standpoint of Egyptian epigraphy. For a relatively recent (1969) appreciation of the importance of the *Denkmaeler* in the field of Greek epigraphy cf. Bernard, *Les Inscriptions grecques de Philae* I, pp. 6 f.; and see Masson, *Bull. de la Société franç. d'Égyptologie* 56 (Nov. 1969), 30, on the role played by Lepsius and his corpus in Carian studies.

4. A. Mariette, *Karnak: Étude topographique et archéologique* (2 vols.; Paris 1875).

disposition on the wall has not been tampered with: the original direction of the writing, the proportions and grouping of the individual signs, and the whole arrangement and relative position of the textual matter in reference to accompanying figures and representations, whenever they occur, all conform to what is found on the monument recorded. Frames and dividing bars are, moreover, shown, as are block joints, gaps, and breaks in the stone; in other words, a determined effort has been made to *convey the actual appearance of the wall*. It is this view or conception of what a published record should be that I want to stress here, inasmuch as it makes Mariette's book significant and praiseworthy despite its obvious failures in the realization of that view. For the plates are certainly not flawless, nor could they possibly be by the very nature of the method which was followed to make them. The epigraphic plates⁵ of Mariette's *Karnak* were drawn in Berlin by Ernst Weidenbach,⁶ who was assisted in this task by Heinrich Grossman, the artists being probably guided by paper squeezes, hand copies, and notes made by Mariette on the spot. I say probably because there is nowhere a description of the method he pursued to record Karnak; it is reasonable to suppose, however, that he followed the system which obtained in those days and particularly the method which he himself had used shortly before to publish the temple of Hathor at Dendera; an idea of his Dendera technique may be formed from a statement of his dated August 1875. He relied greatly, I dare say too much, on Weidenbach's outstanding ability and long experience. "Trop souvent," wrote Mariette, "je n'ai eu à fournir à M. Weidenbach que des esquisses imparfaites tracées à la hâte dans la demi-obscurité du temple, au sommet d'une échelle, dans le fonds malsain d'une crypte. Grâce à sa connaissance et à sa longue pratique des monuments, M. Weidenbach a toujours pu compléter ces esquisses et en tirer

5. In contradistinction to the topographical plates (Mariette, *Karnak*, Planches, Pls. 1-7), which were produced at the lithographic establishment of O. de Bomsdorff at Leipzig.

6. See Dawson and Uphill, *Who Was Who in Egyptology*, 2nd ed (London 1972), p. 299. Weidenbach had an extraordinary genius for epigraphic work. No better proof of it could be adduced than his hand copy of Queen Katimala's inscribed relief in the temple of Semna, which is an exceedingly difficult record to reproduce on account of the bizarre, cramped hieroglyphs of the long text that accompanies the scene proper. He made *in situ* an admirable free-hand copy of the whole, including the adjoining records, and could not have had more than a few hours to complete it; cf. Grapow, *ÄZ* 76 (1940), Pl. 3.

les planches correctes et fidèles que le lecteur a sous les yeux.”⁷ Drawings so made, away from the wall and on the base of hand copies which were often no more than defective sketches hastily pencilled under trying conditions, were doomed from the start to be inaccurate no matter how skilful and practiced the draughtsman who drew them might have been.

Such was, at all events, the standard procedure at that time. The epigraphist would send his squeezes and hand copies to Europe, where a fair copy or final drawing would be made from them. Occasionally the final drawing would be collated with another set of squeezes or hand copies, or both, of the same wall supplied by an obliging colleague; but only very exceptionally would it be checked against the original monument before being declared “bon à tirer.” It was precisely that method that Édouard Henri Naville followed to make a partial record of four royal tombs at Bibân el-Mulûk which he published in 1875.⁸ Here again the line drawings show hieroglyphs standardized by the modern draughtsman, and here again the original direction of the writing and the relative position of the component signs have been adhered to. Note also that his copy of the Book of the Divine Cow shows the figures that illustrate it in their proper places with the exception of the main vignette, the picture of the Celestial Cow, which, perhaps because of its relatively large size, was dislodged and printed separately. In the Litany of Rê Naville was confronted with the problem of cartouches which repeat themselves *ad nauseam*—one of the Gordian knots of epigraphy which he cut by drawing the roped loops and leaving the insides blank. Other “artist’s licenses” may be detected in his copies, such as drawing on the same level hieroglyphic columns cut on the rhomboidal walls of slanting corridors. It is at any rate to his credit that in the two publications to which I now refer *translation and commentary go hand in hand with the original texts*.⁹ It was about a quarter of a century later that Naville made his

7. A. Mariette, *Dendérah, Text* (Paris-Cairo 1875), p. 350.

8. E. H. Naville, *Trans. Soc. Biblical Archaeology* 4 (1876), 1 ff.; *id.*, *La Litane du Soleil. Inscriptions recueillies dans les tombeaux des rois à Thèbes* (2 vols.; Leipzig 1875).

9. Translation and commentary are essential, and by ignoring them many of our epigraphic publications are little else than sheaves of plates. In a recent (1969) corpus of Philae inscriptions every single text is translated and commented on, and the author tells us: “Nous tenons à réagir de la sorte contre les éditions présentant des textes épigraphiques sans aucun commentaire et sans aucune traduction, en ayant l’air de suggérer que seul le dernier des ignorants a besoin

greatest epigraphic contribution to our science, namely, the facsimile publication, *in extenso*, of Hatshepsut's mortuary temple at Western Thebes.¹⁰ The walls of that monument are crowded with scenes and hieroglyphic inscriptions carved with great skill and even greater richness of detail. To facsimile them was a long, difficult, painstaking task, copying being rendered all the harder by the erasures made by Tuthmosis III's and Akhenaten's agents. All the inscribed surfaces in the Hatshepsut temple are faithfully reproduced in Naville's book, and I know of few epigraphic drawings which so effectively convey the feeling of the sculptured wall. That is epigraphy at its best. There are also some fine colored facsimiles of painted reliefs, while texts and representations are all translated and commented on, plate by plate. Add to this, handy volumes which are perfectly sensible in size and weight, and one is only left with the regret, or the complaint, that there is neither a general nor an Egyptian index to facilitate one's delvings in that copious treasure of historical, archaeological, religious and philological information. However, let us give Caesar his due: most of the plates are the work of Howard Carter, an epigraphist of outstanding ability. He made tracings of the surfaces to be recorded, transferred them to heavy drawing paper on a smaller scale by means of a grid of reducing squares, and finally pencilled or, more often, crayoned in his reductions, performing all those operations *in situ* with constant reference to the originals; meanwhile Naville would meticulously check and collate Carter's results with the monument itself at every state of the process.¹¹

I am not committed to chronological sequence and feel free to return to 1875 and speak of Heinrich F. K. Brugsch, whose gigantic contributions to Egyptology include a vast amount of difficult recording that he performed in a masterly way and record time. He exemplifies to a superlative degree that *speed of accomplishment* which the epigraphist should strive for in his field work as well as in the publication of his labors. In

d'explication." He dilates upon this topic, but lack of space prevents me from quoting his pointed remarks in full; see Bernard, *Les Inscriptions grecques de Philae* I, pp. xiii f.

10. E. H. Naville, *The Temple of Deir el Bahari* (7 vols.; London 1894-1908).

11. The method was described to me by the late Sir Alan Gardiner and Mrs. Nina M. Davies. She was a mine of information on recording techniques; it is much to be regretted that she never wrote on the subject.

the course of 1875 Brugsch had occasion to pay a three days' visit to the oasis of el-Kharga, and also made a brief stop at Edfu. In the temple of Edfu he recorded Ptolemy XI's building-inscription, and that long text, with translation and commentary, he published before the year was out, in September-October 1875 to be precise,¹² while his epigraphic work in the temples of Naḏûra and Hibis in the Great Oasis appeared in book form in 1878, only three years after the actual copying was made.¹³ The texts in the pyramid of King Merenrêr at Saqqâra came to light when the monument was cleared in the last days of December 1880.¹⁴ At the request of Mariette, who was on his deathbed, Brugsch went to examine the discovery on 4 January 1881.¹⁵ Only a few days later, on January 9th, he sent a circumstantial report to Berlin which included copies of the hieroglyphic legends on Merenrêr's sarcophagus and 49 long lines of text cut on the walls of the king's tomb, all of them translated, and even with comments on the unusual palaeography. It was followed by another communication dated 15 February 1881 and dealing with Pepy I's pyramid. Both were printed in the first issue of *ÄZ* for that year—the earliest publication of Pyramid Texts.¹⁶

Discovered almost a century ago and immediately recognized as being of paramount importance from many points of view, the Pyramid Texts are still in want of proper publication—a formidable epigraphic task. I have just mentioned Brugsch's pioneering contribution, which offered but a taste of them to the scholarly world. The real *editio princeps* soon followed it and was Gaston Maspero's work, a brilliant *tour de force* almost unparalleled in the entire history of Egyptology. The lengthy texts found in five different pyramid-tombs at Saqqâra were published in full between 1882 and 1893, all of them set in type in horizontal lines reading from left to right, with all the shortcomings, inaccuracies and

12. Brugsch, *ÄZ* 13 (1875), 113 ff. with Pls. 1–2. His copy reproduces slightly more than half of the original inscription; it overlaps and completes a partial copy of it previously published by Dümichen, *ÄZ* 11 (1873), 109 ff. with Pls. 1–2 (Inscr. A); see Porter-Moss, *Topographical Bibliography* VI, p. 168 (top).

13. H. K. Brugsch, *Reise nach der grossen Oase el Khargeh in der libyschen Wüste* (Leipzig 1878).

14. Maspero, *Rec. trav.* 5 (1884), 157.

15. H. K. Brugsch, *Mein Leben und mein Wandern* (Berlin 1894), pp. 348 ff.; Maspero in A. Mariette, *Oeuvres diverses* I (Paris 1904), p. ccxx.

16. Brugsch, *ÄZ* 19 (1881), 1 ff.

incongruities inherent in such a mode of reproduction; a French rendering accompanied each set of texts.¹⁷ Maspero's hieroglyphic version was established on the base of paper squeezes and hand copies which he and others had made, the final fair copy being collated with the originals by Maspero himself. Kurt Sethe's publication of those ancient funerary texts is, strictly speaking, the fruit of editorial work, not actual epigraphic recording; nevertheless, it *is* a copy of tomb inscriptions, and the commanding position of its author, the manner in which it was made and the mode of presentation entitle it to our attention here.¹⁸ It is desk work from end to end. Sethe made use of paper squeezes, photographs, a few hand copies supplied by fellow workers, and previous publications, but did not check the actual walls.¹⁹ The texts are written virtually throughout in Sethe's own brand of hieroglyphs; only here and there, in the case of rare characters or unusual forms, did he make an attempt to reproduce not just the *ductus* but also all the details and features of such signs. As editor, he took other liberties with the inscriptions, of which he did not fail to give the reader due notice; a halftone plate at the end of the book gives photographic specimens of the style of writing in the five pyramids recorded. Published six decades later, Alexandre Piankoff's edition of the texts in the pyramid of Unas represents a very different copying technique and a very different mode of presentation.²⁰ Both the recording and the publication of the hieroglyphic texts in Unas' pyramid have here been done photographically from start to finish, and the result is an exemplary facsimile edition; ²¹ only in three or four places may

17. Cf. Leclant in *Textes et langages de l'Égypte pharaonique* II (*Biblio. d'Étude* 64, Pt. 2; Cairo [1972]), 37 f., with references.

18. K. Sethe, *Die altaegyptischen Pyramidentexte* (4 vols.; Leipzig 1908–1922).

19. Sethe, *op. cit.* I, pp. ix f. A circumstantial account of Sethe's method and sources was written by Grapow, *ZDMG* 91 (1937), 537 ff. = *Chronique d'Égypte* 14 (1939), 218 ff. Leclant, *Bull. de la Société franç. d'Égyptologie* 58 (June 1970), 15 f., describes how Sethe was occasionally misled by apparently perfect squeezes; a glance at the wall would instantly have disclosed to him the true state of affairs. Leclant's remarks are of great epigraphic interest.

20. A. Piankoff, *The Pyramid of Unas* (New York 1968).

21. The arrangement of the plates and the numbering of the columns are particularly felicitous. They are the work of Mr. Bernard V. Bothmer, who deserves all our gratitude and high praise both for taking the trouble to attend to those important practical problems and for the ingenious way in which he has solved them. A number of epigraphic publications suffer from neglect of such problems. Take, for instance, A. Piankoff, *The Litany of Re* (New York 1964),

perhaps the cautious student want to consult Sethe's readings to reassure himself about what is upon the wall,²² and in so doing he will not fail to be struck how awkward and unsound is the practice of changing the original writing from vertical to horizontal and from right-left to left-right.

Photographs of epigraphic records have long been utilized, reproduced as such, in our Egyptological publications, though seldom so extensively and effectively as in Piankoff's book on the Unas pyramid. Photographic prints have also been used for drawing on: instead of using a blank sheet of paper, the copyist delineates the hieroglyphs and figures of a given wall on a photograph of it; his pencil follows the photographic image, which is chemically bleached away afterwards, and what remains is a line drawing on white paper. By that method Félix Guilmant produced a virtually complete record in facsimile of Ramesses IX's tomb in the Valley of the Kings.²³ It is a large tomb, 65 meters, or nearly 215 feet, long with hardly one inch of wall free from texts and representations; the wealth of painted detail is overwhelming, and the brushwork of extreme finesse. All that is meticulously, accurately reproduced in Guilmant's drawings; and it is remarkable how thoughtfully he anticipated the practical needs of the reader: each drawing is provided with a meter scale, and hieroglyphic lines and columns are neatly numbered for reference. The plates are superb, but plates alone do not make a book. Apart from title page and "table des planches," there is no letterpress. Issued by the French Institute of Oriental Archaeology in Cairo in 1907, Guilmant's disappointingly incomplete set of plates is among the earliest epigraphic publications which made use of drawn-on photographs wholesale. The method is now firmly established, and the facsimiles published by the late Amice Mary Calverley,²⁴ the Chicago

Pls. 7, 10; or Calverley, *Temple of King Sethos I at Abydos* II, Pls. 22, 32, 36; or Pierre Clère, *La Porte d'Évergète à Karnak*, Pt. 2 (*MIFAO* 84; Cairo 1961), Pls. 59, 60, 67, 75: one is puzzled how to quote (or find) a word or a passage in those crowded plates.

22. For instance, Piankoff, *The Pyramid of Unas*, Pl. 27 (272 392a, and 392cd), and Pl. 40 (145 abc); cf. Sethe, *Die altaegyptischen Pyramidentexte* III, pp. 21 f. and 10 respectively.

23. F. Guilmant, *Le Tombeau de Ramsès IX* (Cairo 1907).

24. See Calverley, *Temple of King Sethos I at Abydos* I, pp. vii f., for a description of her techniques.

Oriental Institute,²⁵ and the Egyptian Center of Documentation²⁶ are in essence drawings made on photographic prints.

A prophet never got honor in his own country. Regrettably, Guilmant did not leave much of a school behind him among his fellow countrymen. The industrious, immensely gifted French Institute epigraphists have regularly shunned facsimile recording and, perhaps because they own the best and richest font of type in the world, have shown a distinct *penchant* for the printed hieroglyph. Apart from a few notable exceptions,²⁷ it has long been their practice to reproduce the inscriptions typographically, whereby all the texts are indiscriminately stretched out on a Procrustes bed which forces them to lie flat and read left-right, and which, moreover, removes them from their indispensable, telltale context of figures, frame lines and other pictorial elements which not merely accompany but effectually complement the inscriptions on the wall. This infelicitous practice mars their epigraphic publications of the great temples of Edfu, Dendera, and Esna.

A remarkable example of meticulous facsimile recording crowned by first-rate publication is to be found in the voluminous production of Norman de Garis Davies.²⁸ His facsimile copies, as seen in his books, are for the most part direct tracings of the walls mechanically reduced by the printer to the required scale. Davies rightly felt that the epigraphist's work did not end at the edge of the drawing board, and always made a point of publishing his facsimiles fully described and commented on, with complete translations and adequate indexes. His wife Nina Macpherson Davies, though collaborating with him in a number of

25. See Nims in *Textes et langages de l'Égypte pharaonique* II, 91 f.; and add Hughes, *Archaeology* 5 (1952), 202 f., to his references.

26. The method used by the Center of Documentation was described to me by Mr. Mohammad Abdel-Latif el-Tambûli and Mr. Hassan el-Ashiry; I also watched them work in the temples of Abu Simbel several times.

27. For instance, L. Épron, F. Daumas, G. Goyon and H. Wild, *Le Tombeau de Ti* (3 fascicles; Cairo 1939-1966); J. Vandier d'Abbadie, *Deux tombes ramessides à Gournet-Mourraï* (Cairo 1954); Pierre Clère, *La Porte d'Évergète à Karnak*.

28. There is no published bibliography of Norman de Garis Davies. His earliest epigraphic drawings are facsimiles of walls of Old Kingdom tombs which he made for W. M. Flinders Petrie in 1898 and were published two years later (Petrie, *Denderah* [London 1900], Pls. 3-5). A list of his books will be found in Dawson and Uphill, *Who Was Who in Egyptology*², p. 78.

projects, also worked on her own, and brought the copying of ancient wall paintings in colored facsimiles to a degree of faithfulness which even the most advanced photographic reproduction in color can but very rarely achieve.²⁹

Color photographic recording at its best is to be found in Arpag Mekhitarian's *La Peinture égyptienne* (Geneva 1954), which is mainly concerned with paintings from Theban tombs of the New Kingdom. The reproductions are absolutely faithful: they show the texture, colors and brushwork of each picture exactly as the human eye sees them on the actual monuments; and the camera work is enhanced by a lucidly written running commentary plus such essential information as the size and location of each record, a bibliography, and a very detailed index. Mekhitarian's book makes one wonder how far the camera may yet go towards solving the problem of color recording—a thorn in the flesh of every conscientious epigraphist. The technical difficulties involved are, however, very great, not to mention the high cost of color printing. Here are two cases in point. The tomb of Queen Nefertari and that of King Haremhab at Western Thebes are remarkable for the amount and quality of the painting still preserved in them. They were recorded in full by color photography in 1963 and 1966 respectively; skilled technicians, using the best available equipment and materials, were called in in an effort to secure faithful records, and equal pains were bestowed on the presswork. The two books that came out as a result in 1971 are invaluable monographs by eminent scholars;³⁰ they constitute exhaustive, impressive, lavish records of the monuments concerned, records which are accurate and trustworthy in all respects except with regard to color, and color happens to be the most striking feature of both the tombs and the books. It cannot be denied that they give an idea of the profusion of painting still extant on the walls, but the colors shown on the plates do

29. Her masterpiece is *Ancient Egyptian Paintings* (3 vols.; Chicago 1936).

30. On the queen's tomb see G. Thausing and H. Goedicke, *Nofretari. Eine Dokumentation der Wandgemälde ihres Grabes* (Graz 1971); some of the color photographs in this publication were used again in E. Dondelinger, *Der Jenseitsweg der Nofretari* (Graz 1973), and it is instructive to compare how the same pictures (cf. *id.*, *ibid.*, p. 57 *s.v.* Nofretari) have fared in one book and in the other; see below, p. 13 n. 31. For the king's tomb see E. Hornung, *Das Grab des Haremhab im Tal der Könige* (Bern 1971).

not always hit the mark, in fact, they are sometimes far wide of the mark. I hope it will not be thought irrelevant if I add that the price of those books is prohibitive. So much for color photography.³¹

I must cut short this rambling review, however, lest it take up the entire space allotted to my paper. It is gratifying to close it by observing that epigraphic contributions of exceptional merit have been made of late. One is Jan Assmann's 1973 book on the tomb of Basa at ʿAsāsif.³² Another is the publication, only last year, of Queen Meresrankh III's mastaba at el-Gîza by Dows Dunham and William Kelly Simpson.³³ Here are two tombs of no mean importance fully recorded in impeccable facsimile drawings and fine photographs complemented by circumstantial descriptions and translation of the hieroglyphic texts. Of a handy format, both books are very finely got-up without falling into superfluous extravagance. They are in the best tradition of recording and publication, and any epigraphist contemplating work on a small or medium-sized monument should profit from a close scrutiny of their contents and makeup.

Progress has been made, but it has been unsteady, inconstant, and far from pervasive. There has been, and continues to be, stagnation and even retrogression in our epigraphic work. Manners forbid quotation; *si exemplum requiris, circumspice*.

Much ground has been covered. There is hardly an inscribed tomb or temple but that has received some degree of epigraphic attention at

31. The reader may judge the present condition of color photography by comparing the painted fragment from a Deir el-Medîna tomb in E. Scamuzzi, *Museo Egizio di Torino* (Turin 1963), Pl. 51, with the same fragment in M. Tosi, *La Capella di Maia* (Turin 1969), [17]. There is a noticeable difference in the color of the mourners' flesh, and it must not be forgotten that those reproductions are not ordinary ones; they are two high quality chromophotographs taken in Turin with all the facilities of lighting and equipment that a great museum can provide, and both printed by the same press, Fratelli Pozzo-Salvati-Gros Monti and Co., undoubtedly one of the finest printing houses in Italy. Also revealing is comparison of the two books on Queen Nefertari's tomb quoted above, p. 12 n. 30, both issued by the same publisher and using the same photographs; e.g. check Thausing-Goedicke, *op. cit.*, Figs. 140 and 153 with Dondelinger, *op. cit.*, Pls. 12 and 29 respectively. Or one may observe the difference in the colors of a given wall in one and the same book, e.g. Thausing-Goedicke, Fig. 37 (right) shown again in 140; Fig. 10 (Horus-Iun-Mutef) again in 94; Fig. 101 again in 154. See also below, p. 22 with n. 61.

32. J. Assmann, *Das Grab des Basa (Nr. 389) in der thebanischen Nekropole* (Mainz am Rhein 1973).

33. D. Dunham and W. K. Simpson, *The Mastaba of Queen Mersyankh III* (Boston 1974).

one time or another; very frequently, however, the available copies or records consist of excerpts only, or are inaccurate, or unsatisfactory on other counts, and consequently an immense amount of epigraphic work still remains to be done. The rock tombs of Beni Ḥasan, Ramesses II's temple at Abydos, and that astonishing tomb of Pedamenōpet, so huge and spectacular that it was called Grabpalast, must be recorded and published *de novo*. So desultory and insufficient is the treatment that has been accorded to Ḥaremḥab's speos at Silsila, Sethos I's temple at Qurna, and the Iseum at Bahbît el-Ḥigâra that it is appropriate to regard those monuments as unpublished. These are but a few conspicuous examples. I will not venture to offer here a list of monuments that want recording, or even a list of priorities; any such list would be unavoidably influenced by my own leanings and sorely incomplete as well, if only for lack of room. The epigraphist casting about for some worthy project can do no better than read through Porter-Moss. The *Topographical Bibliography* will enable him to determine precisely what remains to be done and what ought to be done again, and will offer him a vast choice of tombs and temples, periods and sites. Once he gets over the initial *embarras de choix*, he should be able to find the monument that will best suit his own scientific interests, personal preferences, training, experience and, last but not least, his purse. Let him work at the monument of his choice, and his performance will be the better for it. Above all, let him work untrammelled by rigid methodology or a once-for-all technique.³⁴ The problems which will confront him at every step in the course of his work cannot be settled by rules, but can be settled only by experience, ingenuity, common sense, theoretical and practical knowledge, imagination, skill, and unflagging determination and toil. To lay down rules and hamstring the epigraphist by imposing on him *one* method can only kill his initiative and have ill effects on his work. Not just every

34. This is no hyperbole. A forever-established, once-for-all epigraphic technique does exist, and I quote: "Si la technique de relevés du Centre de Documentation a été *une fois pour toute* établie pour chacun des secteurs qui doivent l'appliquer, — (archéologie, *épigraphe*, architecture, photographie, dessin, maquette et, pour finir, constitution des archives de sécurité par la photogrammétrie), — leur diffusion se fait sous deux aspects différents." This quotation (in which only the emphasis is mine, not the misprint) is borrowed from a statement of policy in Centre de Documentation et d'Études sur l'Ancienne Égypte, *Le Temple d'Amada*, Cahier I (Cairo 1967), Préface Générale, p. iii.

monument, but every wall, every inscribed panel has its own problems, and the copyist should be free to use his own judgment in determining how best to cope with them and vary his methods according to the circumstances of the case.³⁵ He should be welcome to try his own ideas and techniques, apart from applying what he has learned through assiduous study of the ways and means by which recording was done in the past and is being done at present.

Recording methods have changed and evolved, though not substantially since the turn of the century. In 1875 the *camera lucida* was already a thing of the past; freehand copying and paper squeezes were the order of the day. Although still in use, they no longer dominate the field. Freehand copying is still used in the recording and publication of texts,³⁶ but is now only exceptionally resorted to for the reproduction of designs and scenes. Recording by means of squeezes or impressions, made of paper as a rule,³⁷ continues to be the favorite method of classical schol-

35. After writing the above remarks I found that Professor Peter L. Shinnie recently took much the same view on another aspect of our field work, namely excavation. At a 1971 meeting in Berlin he expressed his reluctance to lay down rules as to how excavations should be carried out, asserting that every site has its own problems and methods of dealing with them must vary in every case, and adding that "only experience and common sense and perhaps a little skill can determine what methods are appropriate." See Shinnie in *Meroitica* 1 (1973), 359, 391, 397.

36. Sometimes lengthy texts. A substantial example of fairly recent date is C. De Wit, *Les Inscriptions du Temple d'Opet, à Karnak* (3 vols.; Brussels 1958-1968). Note also M. F. L. Macadam, *The Temples of Kawa I, Text* (2 vols. in 4 parts; Oxford and London 1949-1955), pp. xv f. with reference to Pls. 22-26; also Schott, *Nachrichten der Akad. der Wissenschaften in Göttingen, Phil.-hist. Kl.* 1961, 123 ff. In the three examples quoted here the hand copies are supplemented by photographs.

37. The orthodox squeeze is a facsimile embossed impression of a carved surface obtained by covering it with paper of a special kind (the paper most in use is a type of filter paper) previously moistened; then the paper is forced or squeezed into the depressions and crevices of the stone by striking it with a brush; after the paper has been left to dry thoroughly it is peeled off, and the squeeze is done. The paper squeeze will permanently retain an embossed image of the surface with which it was in contact. For a description of squeeze-taking see A. G. Woodhead, *The Study of Greek Inscriptions* (Cambridge, Eng., 1959), pp. 78 ff. and notes on pp. 129 f.; R. Bloch, *L'Épigraphie latine* (Paris 1952), pp. 12 f.; Dow, *AJA* 37 (1933), 580 n. 2. Good photographs of paper squeezes in J. Leclant, *Montouemhat, quatrième prophète d'Amon* (Cairo 1961), Pls. 68-70; also the demotic texts, though from neither a tomb nor a temple, published by Spiegelberg, *ÄZ* 50 (1912), Pl. 3 Fig. 1; 51 (1913), Pl. 3. And as a curiosity, see the photograph of a cast taken from a tin foil squeeze of a Fifth Dynasty tomb relief: N. de G. Davies, *The Mastaba of Ptahhetep and Akhethetep II* (London 1901), frontispiece and p. 34.

ars for copying Greek and Latin graffiti that are found in ancient Egyptian temples and tombs.³⁸ Paper squeezes were used by Battiscombe Gunn to copy Old and Middle Kingdom inscribed remains at Saqqâra in 1924, for example;³⁹ they were among the recording aids used by Dr. M. F. Laming Macadam in making his facsimile drawings of Kawa inscriptions and reliefs which were published in 1949-55;⁴⁰ and even more recently they have been of great assistance in the preparation of the facsimile edition of the temple of Philae, which is still in course of publication.⁴¹ Lastly, it may be noted that impressions taken with latex or liquid rubber⁴² form the substratum of Professor Fritz Hintze's meticulous facsimile drawings of texts and scenes in the Lion Temple in the Sudan.⁴³ Warning: paper squeezes are harmful, and latex ones fatal, to friable surfaces and paint.

Photography has been used, and profusely, for epigraphic purposes, but is not, in its present state at any rate, the ultimate solution. To secure a fully legible epigraphic photograph several necessary conditions must be satisfied: good light, adequate room for maneuvering and setting the camera at the right angle and distance from the wall, and the wall itself must be in excellent state of preservation. Only very rarely do these conditions present themselves together in the field. In the case of, for example, palimpsests, usurped cartouches and ancient corrections, even photographs taken under the best possible circumstances may be unclear

38. Cf. A. and E. Bernand, *Les Inscriptions grecques et latines du Colosse de Memnon* (Paris 1960); Bernand, *Les Inscriptions grecques de Philae*. On the use and advantages of squeezes in Graeco-Latin epigraphy see B. D. Meritt, *Epigraphica Attica* (Cambridge, Mass., 1940), pp. 6, 141 n. 6.; J. and L. Robert, *Revue des études grecques* 66 (1953), 118 ff.; 67 (1954), 96; Woodhead, *The Study of Greek Inscriptions*, p. 138 s.v. Squeezes.

39. Firth and Gunn, *Teti Pyramid Cemeteries I*, Text, pp. 85 ff.; Pls. 55-64, 66-78, 81-85. Gunn's statement about his own epigraphic work is worth quoting because of the warning implicit in it: "My copies have been made either by 'squeezing' (where no damage to the stone could result) or by tracing"; *id.*, *ibid.*, p. 85. See also Gunn, *ASAE* 35 (1935), 62.

40. Macadam, *The Temples of Kawa*.

41. H. Junker, *Der Grosse Pylon des Tempels der Isis in Philä* (Vienna 1958), followed by Junker-Winter, *Philä II*, for which see below, pp. 24 f.

42. Cf. Woodhead, *The Study of Greek Inscriptions*, pp. 80 f., quoting Pritchett, *AJA* 56 (1952), 118 ff.; 57 (1953), 197 f. Readers of Professor Pritchett's articles on liquid rubber squeezes should not overlook J. and L. Robert's remarks in the two articles quoted in footnote 38, above.

43. F. Hintze, *Die Inschriften des Löwentempels von Musawwarat es Sufra* (Berlin 1962).

or misleading, not to mention that the sharpness and legibility of the original print are liable to suffer, be it ever so slightly, in the process of publication. I need not enlarge upon this point. Professor Charles Francis Nims, than whom there is no higher authority, has written "to emphasize that even the best obtainable photograph can be misleading, and that often only the closest personal observation can recover the evidence."⁴⁴

A special kind of hand copy that surpasses photography in that it can clearly show even those elusive traces that "only the closest personal observation can recover" is the facsimile drawing. To make a facsimile drawing the epigraphist will regularly follow a method that has been used for many decades in Egypt and is still unsuperseded. It consists in making the drawing on paper which already contains an accurate, though unpolished and unprintable, image of the wall. The background image, which will guide the copyist's hand, may be a photograph, or a rubbing,⁴⁵ or a tracing. The use of one or the other is largely, not entirely, the epigraphist's choice: though he will first consult his own preferences and working habits, he also has to consider the nature of the original record and the nature and condition of the wall.⁴⁶ He

44. Nims, *JEA* 38 (1952), 34 n. 3.

45. The rubbing is a copy of an engraved or carved surface obtained by holding a sheet of thin paper tautly over it and rubbing the paper with heelball (a mixture of hard wax and lamp-black much used by cobblers), graphite, carbon paper, or crayon. Photographs of rubbings of Egyptian records have been published by Rosalind L. B. Moss, *JEA* 27 (1941), 7 ff. with Pls. 2 and 3; they were made by a certain John Williams between 1830 and 1840 by a method of his own invention. He published a description of it which is reproduced in Dr. Moss's article. His method, which has only antiquarian interest now, is more sophisticated than the simple one described above, but certainly not more effective; the results are much the same. I examined the Williams rubbings at the Griffith Institute in 1963.

46. One epigraphist will ply his pencil admirably on the smooth gelatin coating of the photographic print. Another will find that only paper with a toothy finish provides the right drag for precise line control; naturally he will not draw on a photograph if he can help it. Yet the photograph may prove inescapable if the wall surface is highly friable, or powdery and blistery, or sorely scarred and granulated by the efflorescence of salts: then the rubbing is out of the question, while the tracing will be extremely difficult to make and may even prove harmful to the wall. Since the rubbing only registers relief work, it is again not to be thought of if the original record is entirely done in paint. The camera will provide a perfect replica only of such ancient records as are cut or painted on flat walls; if they are on a curved surface like a column or a vaulted ceiling they will appear distorted in the photograph, and either a rubbing or a

makes his drawing upon the background image, which he pencils over much as if he were filling a mould, in front of the original and with constant reference to it. To ensure accuracy, the drawing is meticulously gone over and compared with the wall. The checking or collation is exhaustive and repeated many times under different light conditions by day and, specially, at night with a movable light,⁴⁷ and always at the closest range. All through this process (as in any other mode of copying, for that matter), careful consideration is given to all relevant work done in the past; for that purpose a compilation of previous published and unpublished copies and studies, if any, will have been prepared in

tracing will have to be used as background (see, however, the clever alternative explained in Calverley, *Temple of King Sethos I at Abydos* III, p. viii, note on Pls. 19–26). Another consideration is that when a rubbing or a tracing serves as background, the drawing is on a large scale, life-size; should the hand falter, any small deviation of the pencil line will be easily spotted and corrected there and then, and if it is small enough to elude repeated collation, then the trifling deviation cannot possibly be of any consequence because it will dwindle to nothingness when the life-size drawing is reduced to plate-size. And so on. Time, a precious commodity in the field, should also be taken into account, not to mention light. Of the three backgrounds, the rubbing is the quickest and easiest to make, and, barring total darkness, it can be made under virtually any lighting conditions: that is important because, if pressed for time, the epigraphist may make his rubbings at night, save the day hours with good light for the drawing board, and thus work practically round the clock. The making of a tracing is, on the other hand, laborious and requires much time and special light conditions, as does the making of photographs for epigraphic use. The vaunted speed of the camera should be taken *cum grano salis*. Triggering the shutter is indeed instantaneous, but the preliminaries of loading the camera, setting it at the proper angle and height, for which scaffolding may have to be put up, and waiting for the right light or inducing it with the help of mirrors or by other means are necessary operations not so briefly disposed of; and then the instantaneous triggering is followed by long hours of laboratory work before the enlarged print is ready for use at the wall—the hours becoming days when, as is frequently the case, there is no darkroom either on the spot or in the near vicinity. It certainly takes more time to make it, but the photographic background has a compensating advantage which the others lack, and that is that if it is printed light (low contrast is the technical term) and, after being drawn on, is allowed to remain instead of being bleached away, the finished product will show the texture, sculptured quality and present condition of the wall in a way which is beyond the possibilities of a line drawing “moulded” on a tracing or a rubbing of the stone; see, for instance, Calverley, *op. cit.* IV, Pls. 50–56. Such are the principal considerations that the epigraphist must weigh before he takes one course or the other.

47. The prime importance of night collation was first pointed out to me by Professor Battiscombe Gunn, who in 1945 gave me a practical demonstration of it in the blackout of his room at Queen’s. His advice did not go unheeded, cf. R. A. Caminos, *The Chronicle of Prince Osorkon* (Rome 1958), p. 5 (§8.7). Note particularly Junker-Winter, *Philä* II, p. 421 n. 1.

advance; taken to the field, the dossier will enable the epigraphist to check the work of his predecessors in the site: the drawing is thus made with full knowledge of what previous copyists saw, or thought they saw, or failed to see, upon the wall.⁴⁸

It is generally agreed that a facsimile drawing is a highly satisfactory mode of recording. Published together with a photograph and a running commentary containing information which the drawing and the photograph can supply only insufficiently or not at all, such a facsimile should adequately meet the normal requirements of scholarship.

In the foregoing discussion reference has been made to the qualities of *accuracy* and *legibility* of the published record. There is still another quality or condition which is a matter of serious concern to the epigraphist, and that is *completeness*. Just how complete must and can the record be made? That is not much of a problem to the epigraphist who is pursuing a particular line of inquiry and goes into a temple or a tomb to gather documentation on a special topic or of a special kind, say agricultural scenes, or harpers' songs, or ornamental motifs, or demotic graffiti; his course is clear, his record is complete when he has done with copying such texts and representations as are pertinent to the subject of his choice, even if the copy covers but a small corner of a wall. The problem takes new dimensions and grows in complexity when a tomb or a temple is recorded as a whole. Whether such a record is done to make the monument available to scholars in book form, or to the more ambitious end of "saving it for posterity," as has been claimed, it is only natural that one should want to offer as full a picture of the monument as possible, wherefrom it follows that the epigraphist should endeavor to produce a record which is comprehensive, exhaustive, complete—within reason. A reasonable degree of completeness is attainable; absolute completeness is not, nor is it always wholly desirable: in fact, there are cases in which it is distinctly undesirable. The minutious epi-

48. Needless to say, consultation of earlier copies and relevant literature is essential whether one is making a facsimile drawing or recording by any other method. Epigraphists, past and present, have seldom failed to avail themselves of the experience of their predecessors. Should the monument being recorded never have been copied or studied before in any way, there will be no dossier, and the epigraphist's field library will consist only of such indispensable reference books as a dictionary, a grammar and a palaeography.

graphist may well indulge in copying every single *cheval de frise* in a small monument, but in making an exhaustive facsimile record of *kheker* friezes in the Edfu temple, or plant dadoes at Dendera, or Sethos I's titularies and cartouches on the Abydos columns, he would be carrying completeness to the point of utter impracticality, producing a work of such enormous proportions as to be too awkward to use and too costly to buy—but no fear, should he survive the undertaking, he would find no publisher.

Repetitious elements and patterns are often met with in temples and tombs, and it would be unwise to formulate a rule as to how to deal with them: chances are that any such rule would work in one case and malfunction in another. The epigraphist must use his own judgment, weigh the problem, and resolve it as he sees fit; he may provide us with a clever new solution. I have already described how Naville dealt with cartouches that recur with irksome monotony in the Litany of Rê.⁴⁹ No one finds fault with the hybrid monograms (W.) and (P.) in Sethe's copy of the Pyramid Texts. After copying a *kheker* frieze in full, Herbert E. Winlock apparently tired of it and on the adjoining wall he merely drew a few *khekers* followed by the word *Repeat*; no one in his senses could possibly take it for a modern graffito.⁵⁰

Whether modern or ancient, graffiti add to the difficulties of making the record complete. They cannot be disregarded. They often are, or may later prove to be, of the highest significance and interest historically, philologically, and in many other ways. They may consist of writing alone, or figures, or a combination of both; they occur in a variety of languages and scripts; and as regards time range, they may be as old as the monument itself⁵¹ and as recent as today. Only the epigraphist, confronted

49. See above, p. 6. Other examples of epigraphic shortcuts may be quoted: Nina de Garis Davies and A. H. Gardiner, *The Tomb of Amenemhät* (London 1915), Pl. 32; Blackman, *Meir* III, p. 10 with Fig. 1, Pls. 9, 28; Calverley, *Temple of King Sethos I at Abydos* III, Pls. 27, 28, 30, 58; IV, 55, 63–66; Junker-Winter, *Philä* II, pp. 402 f.

50. H. E. Winlock, *Ed Dākhleh Oasis* (New York 1936), Pl. 22 (south wall). Surely Winlock's "Repeat" is not on a par with the "etc." found in a headpiece by Gustave Doré. In drawing the front of a huge building Doré put in several windows followed by "etc.," leaving it to the engraver to complete the fenestration on the block, but the dull engraver, missing his cue, cut "etc." in the block, and it was so printed: cf. E. J. Sullivan, *The Art of Illustration* (New York [1921]), pp. 163 f. with Fig. 52 on p. 127.

51. Some graffiti are actually older than the monument, or antedate its completion and

with them, can aptly determine which to copy and which to forego. He may want to record all of them, though if they are too numerous, he may have no option but to make a selection. When they are few, it is no problem to reproduce them precisely where they belong, that is, together with the original scene upon which they encroach, or however the case may be.⁵² When they are found in large numbers or are too long or too crowded, they may have to be taken out of context, sorted out, and reproduced separately.⁵³ There has been a tendency to make light of modern graffiti. Yet they are valuable clues to the vicissitudes of monuments and sites in recent times,⁵⁴ bear witness to scholarly work,⁵⁵ help trace the wanderings of XIXth-century explorers, the so-called "early travellers,"⁵⁶ and, should they be preserved, there is no telling

dedication in any case; e.g. LD II, Pl. 1 (a-e); L. Borchardt, *Das Grabdenkmal des Königs Sashu-er I* (2 vols.; Leipzig 1910-1913), pp. 85 ff. with Pl. 13; Gunn, *ASAE* 35 (1935), 62 (with n. 2) ff. and Pls. 1-3; also quarry marks such as those recorded and discussed by Nagel, *ASAE* 50 (1950), 93 ff. with Pls. 1-19.

52. A few examples should suffice: Macadam, *The Temples of Kawa I*, Plates, Pls. 27-28; II, Plates, Pl. xxv (a-b); J. Vandier d'Abbadie, *Deux tombes ramessides à Gournet-Mourrai*, Pls. 12, 14, 22 (cf. Pl. 38); R. A. Caminos, *The New-Kingdom Temples of Buhen I* (2 vols.; London 1974), Pls. 14 Fig. 2; 20; 57 Fig. 1; 64 Fig. 2.

53. E.g., Gardiner in N. de G. Davies, *The Tomb of Antefoker* (London 1920), pp. 2 ff. and Pls. 35-37; W. F. Edgerton, *Medinet Habu Graffiti* (Univ. of Chicago, *Or. Inst. Pub.* 36 [Chicago 1937]).

54. An excellent example of accurate recording and utilization of modern graffiti for the study of the exploration of a site and its ruins is M. Schiff Giorgini, C. Robichon, and J. Leclant, *Soleb I, 1813-1963* (Florence 1965), pp. 12 ff. Note also Maspero, *Rec. trav.* 3 (1882), 177 (bottom). See further Winlock, *Ed Dakhleh Oasis*, pp. 3 ff.; Pillet, *Revue de l'Égypte Ancienne* 3 (1931), 71; K. Michalowski, *Faras: Fouilles Polonaises 1961* (Warsaw 1962), p. 21 n. 4.

55. Cf. Bouriant in *Mém. Miss. fr.* 1 (1889), 9; R. A. Caminos, *The Shrines and Rock-Inscriptions of Ibrim* (London 1968), p. 90 with nn. 4-5; Legrain, *ASAE* 1 (1900), 15 f. (but correct his reference and read J. F. Champollion, *Lettres écrites d'Égypte et de Nubie* [Paris 1833], pp. 258 f.); Leclant, *Bull. de la Société franç. d'Égyptologie* 58 (June 1970), 7 with n. 4 on p. 17. Few graffiti are more circumstantial and informative with regard to Egyptological field work than that which Lepsius caused to be carved on the pyramid-tomb of Khufu, and which he, too, was the first to publish; cf. K. R. Lepsius, *Briefe aus Aegypten, Aethiopien und der Halbinsel des Sinai* (Berlin 1852), pp. 30 f.; it was again published in Goyon's book (pp. lxxvi f., p. 82 n. 1, Pl. 117) quoted in the next footnote; for a photograph of the Lepsius inscription see Fischer, *MMJ* 9 (1974), 8 Fig. 5, 9 with n. 23.

56. Cf. Brugsch, *Reise nach der grossen Oase el Khargeh in der libyschen Wüste*, p. 17 n. *; E. Lefébure, *Les Hypogées royaux de Thèbes II* (*Mém. Miss. fr.* 3¹ [Paris 1889]), p. 168; Dewachter, *BIFAO* 69 (1971), 131 ff.; see also the references given in footnote 54, above. The fullest record of modern graffiti in any monument anywhere in Egypt is G. Goyon, *Les Inscriptions et graffiti des voyageurs sur la Grande Pyramide* (Cairo 1944).

just what uses today's graffiti may be put to by future researchers. It may happen that the epigraphist, threatened with being swamped by them, decides to leave them unrecorded; let him do so, but let him not think scorn of them. As Gaston Maspero rightly said of them, "Ils sont trop près de nous encore pour nous sembler autres que ridicules, mais laissez couler une centaine d'années seulement, et le recul leur prêtera déjà un certain prestige."⁵⁷ Let a thousand years pass by, and scholars will be in raptures over ghafîr Abdul Rahman's signed arabesques incised on blocks of the Kumma temple.⁵⁸

One element still remains for consideration in the problem of making the record exhaustive and complete, namely the paint which may be preserved upon the wall. Paint is inseparable from the inscriptions and figures on which it was laid, and no record is either satisfactory or complete that fails to give adequate account of it, no matter how large or small the amount of color still extant may be.⁵⁹ Color recording and publication, faithful and in full, appears to be, at least for the time being, out of the question even in the case of small or relatively small monuments. Our own growing incompetence to copy color,⁶⁰ the still unsatisfactory state of chromophotography, and the high cost of color printing are the main stumbling blocks, and they are formidable.⁶¹ How

57. G. Maspero, *Causeries d'Égypte* (Paris 1907), pp. 175 f.

58. They are early A.D. 1964. Students of his graffiti will perhaps appreciate this reference: F. Hinkel, *Tempel ziehen um* (Leipzig 1966), p. 138 (upper).

59. The significance and interest of many a monument lies largely, sometimes exclusively, in the paintings that it contains. Think of Nakht's little tomb at Qurna. Imagine what we should miss if the great Abydos temple would have come down to us wholly stripped of paint. Color has also evidential value: sometimes all that remains of a hieroglyph is a flake of paint at the bottom of a crack, and the color may decide the reading; a tiny patch of Prussian blue on a mutilated figure may be the only indication that it is a god.

60. When Nina Macpherson Davies died in April 1965, Cyril Aldred wrote that he saw sad indications that a brilliant tradition of recording had "died with her, but in splendour." A decade has gone by, and there has been no sign to give us hope that his "gloomy prediction," as Harry James called it, may prove untrue. (The quotations are borrowed from *JEA* 51 (1965), 2 and 199.)

61. See pp. 12 f. with nn. 30 f., above. Again I quote a distinguished scholar and epigraphist who has made himself a name as a photographer as well. Speaking of the great temple at Medînet Habu he wrote: "The soil on the walls, the depth of the reliefs, and the problems of lighting preclude the use of color photography even today," and added, "cost has limited the number of color plates in the publications." Thus Nims in *Textes et langage de l'Égypte pharaonique* II, 93.

long will it be before they are overcome is anybody's guess. Meanwhile, and only as a *pis aller*, one can give a verbal description of the colors supplemented by armorial sketches of details in which the paint pattern is much too intricate to be clearly set forth in words,⁶² and perhaps one could add a photographic close-up in color of a small area in which paint, texture and brushwork are shown to better advantage, though if the photograph is not absolutely faithful I would not hesitate to do without it. In the verbal descriptions and color codes care must be taken to designate the colors with precision. This is no place to go into the problem of color nomenclature; suffice it to say that "red," "green," "yellow" are vague, generic terms subject to widely different interpretations and therefore inadequate for accurate color description.⁶³ The method just adumbrated, which is admittedly makeshift, has been found to work well with individual hieroglyphs, single items in scenes like a piece of furniture or an article of dress, ornamental borders, and small areas generally. Insofar as I know, it has never been used, probably for good reason, to represent the coloring of large walls crowded with elaborately painted hieroglyphs and figures.⁶⁴ Lastly, if no trace of color is to be found on the wall, the record should explicitly say so.

Now the field work is at an end, the record done; a scale has been added to photographs and drawings, the hieroglyphic lines have been numbered, the plates are almost ready for the press. To make them, the epigraphist spent long days scrutinizing the walls; he knows them inch

62. Colors verbally described, Gunn in Firth and Gunn, *Teti Pyramid Cemeteries I*, Text, pp. 161 ff. Verbal description supplemented by armorial sketches, G. Roeder, *Der Felsentempel von Bet el-Wali* (Cairo 1938), pp. 56 ff., plus 6 color plates showing details of the paint work; Caminos, *The New-Kingdom Temples of Buhen II*, pp. 6, 42, 49, 70, 91. Verbal description supplemented by color sketches, T. G. H. James, *The Mastaba of Khentika called Ikhekhi* (London 1953), p. 34 with Fig. 14; A. M. Blackman, *The Temple of Dendûr* (Cairo 1911), pp. 32 ff., Pls. 111 Fig. 1; 117 Fig. 5. For still another system of color notation see footnote 64, below.

63. See Schenkel, *ÄZ* 88 (1963), 131 ff., who discusses at some length Wilhelm Ostwald's highly technical color scheme and nomenclature. For a succinct explanation see J. Scott Taylor in R. Mond and O. H. Myers, *Cemeteries of Armant I*, Text (London 1937), p. 187.

64. Large walls of that kind, though now reduced to scattered fragments, are those from Saḥurê's tomb-complex at Abûšîr. In the publication, the extant coloring is minutiously indicated by sigla entered into the facsimile drawings on the plates; cf. Borchardt, *Das Grabdenkmal des Königs Saḥu-rer II*, Text, p. 3 with n. 1; *Abbildungsblätter*, *passim*. The same system of color notation is used by, e.g., Blackman, *Meir IV*, Pls. 18, 19, 21.

by inch, and the inscriptions too because, being a conscientious worker, he did not copy them mechanically. His experience is invaluable; it must not be lost. He puts down in writing all he knows about the monument, makes plain what may not be quite clear on the plates, and supplies information which a purely graphic record cannot possibly convey; what he writes will be not "for the drawer," but a running commentary and translation to be published together with the plates. He browses in the library to see how leading epigraphists have published their records. He wants nothing but the best. This is the book he wants: *Das Geburtshaus des Tempels der Isis in Philä* by Hermann Junker and Erich Winter, with drawings by Dr. Otto Daum, published in Vienna in 1965.

Here is a full epigraphic record of a major monument which is literally covered from top to bottom with inscriptions and reliefs of exceptional interest. All the inscribed wall panels, ceilings and column shafts are reproduced in admirable facsimile line drawings without a single exception. The published facsimiles were "moulded" on tracings most ingeniously produced with the help of a magic lantern;⁶⁵ extensive use was made of paper squeezes and photographs as copying aids; the drawings were collated with the originals not only by day but also at night with hand lamps. The exact position and dimensions of scenes, texts and ornamental designs can be easily and quickly determined by means of elevations and a ground plan, all drawn to scale. All the inscriptions are transliterated and translated; that is very welcome help indeed, and doubly appreciated because it is given on the spot: transliteration and translation are printed facing the facsimile copy of the corresponding hieroglyphic text, a novel arrangement that reveals both great concern for the reader and remarkable practical sense. Additional assistance is afforded by a topical index of scenes, and I know that there will be detailed general and Egyptian indexes in the last volume of the work, which is the proper place for them. The scenes as well as columns and lines of purely textual matter, sometimes of great length, have been so split that, without detriment to either continuity or legibility, it has been possible to publish them in a single royal 4° volume, 31 by 24 cm., or 12¼ by 9½ inches. This handy format is another noteworthy feature,

65. The method calls to mind that described by Macadam, *JEA* 37 (1951), 23 (bottom).

and proves that it is not at all necessary to resort to awkward, cumbersome folio sizes to publish large monuments. I could have wished for a sprinkle of photographs of wall details showing the quality of the relief work, but then I reflected that the addition of even a few halftones might have pushed the cost of the book beyond my means. Junker-Winter, *Philä* II is a paragon of epigraphic accomplishment in its two essential phases of recording and publication. It carries the palm.

Archaeological Aspects of Epigraphy and Palaeography

By HENRY G. FISCHER

Wie alles sich zum Ganzen webt,
Eins in dem andern wirkt und lebt!
GOETHE, *Faust*.

THE subject of this paper is simple enough; it concerns the use of hieroglyphic inscriptions in dating and in establishing the provenance of archaeological material, including tombs, towns, temples, and their contents. The ramifications of the subject are less simple because they are all so completely interrelated. For it is not sufficient only to examine the palaeographic development of the signs; one must simultaneously take into account such epigraphic considerations¹ as their location, orientation, layout and spacing. In short, it is not only the form that counts, but the context.

Before reviewing the various kinds of context, however, I want to mention some points of a more general nature. To an archaeologist it may seem that hieroglyphs, being relatively resistant to change as compared to hieratic, might be less useful than the latter for the purpose of dating—less useful, in fact, in much the same way that stone vessels are inferior to pottery as an archaeological tool. That comparison is only partly valid, and for at least three reasons. In the first place, the hieroglyphic evidence is relatively abundant. A roll of papyrus, although initially less breakable than pottery, eventually disintegrated much more completely, often leaving no more than a mud seal to attest its existence—the only part of it, in fact, that shares the composition and

1. The distinction between “palaeographic” and “epigraphic” is more common in German: e.g. K. Sethe, *Die altägyptischen Pyramidentexte IV: Epigraphik* (Leipzig 1922); J. Polotsky, *Zu den Inschriften der 11. Dynastie* (Leipzig 1929), p. 10 (“Paläographisches”), p. 16 (“Epigraphisches”).

longevity of a potsherd. As one goes back to the earliest periods, the proportion of hieroglyphic inscriptions, written on more durable material, becomes increasingly greater than hieratic. Secondly, hieroglyphic inscriptions are ubiquitous. It is this sort of inscription, rather than hieratic, that is most closely associated with those structures and their contents that we wish to date. Thirdly, they are relatively fixed. Hieroglyphic monuments, unlike letters or other papyrus documents, tended to stay in one place and were generally inscribed in that place.² Hence they were apt to acquire local peculiarities, especially during periods when the country was divided and when, for that very reason, such peculiarities are of interest in suggesting the extent of contact and alliance between various groups of towns and provinces.

The last of these points brings up the question of **geographical context**—the extent to which inscriptions may be indicative, not only of a certain time, but also of a certain place or general region. The First Intermediate Period (more specifically, the Eighth to Eleventh Dynasties, down to the reunification of Egypt) has provided the greatest variety of localisms, together with the possibility of relating some of the localisms as “isographs” that define a range of mutual contact. The initial work, done by Polotsky in 1929,³ was more concerned with chronological indications than with the differentiation of localities. The second aspect was pursued more specifically in later studies of material from Naga ed-Deir,⁴ Abydos,⁵ Dendera,⁶ Naqada⁷ and Gebelein.⁸ More recently Schenkel has studied the phraseology of Upper Egyptian inscrip-

2. This statement is subject to certain reservations. Middle Kingdom stelae at Abydos were sometimes manufactured elsewhere or, if manufactured there, they may have been the work of a sculptor who was trained in another place (*ÄZ* 100 [1973], 20, n. 8). And Labib Habachi has demonstrated how often monuments, or parts of monuments, were taken from one Delta site to be reused in another: *ASAE* 52 (1954), 443–562 (from Khatârna-Qantîr); *Tell Basta* (*ASAE* Suppl., No. 22 [Cairo 1957]), pp. 134–140 (from Bubastis).

3. See note 1 above.

4. References in W. Schenkel, *Frühmittelägyptische Studien* (Bonn 1962); in addition see *JAOS* 76 (1956), 99–110 and Settgest, *MDIK* 19 (1963), 7–15.

5. *JARCE* 1 (1962), 8–11, and Edward Brovanski, *JNES* 32 (1973), 453–465.

6. Fischer, *Dendera*.

7. Fischer, *Inscriptions from the Coptite Nome*.

8. *Kush* 9 (1961), 44–45, 79–80; 10 (1962), 333–334.

tions with similar results.⁹ As the study of individual sites continues, we shall gradually be able to make further distinctions and so build up a sounder basis for determining the origin of material whose provenance is unrecorded. And we shall also be better able to allow for local peculiarities in interpreting the texts.¹⁰ The most immediately promising prospects for the future are Akhmin, the necropolis of which awaits thorough investigation and publication,¹¹ Heracleopolis, where excavations yielded new material in 1968,¹² and sites in the Delta such as Mendes, excavated during three seasons in 1964–1966.¹³

The **architectural context** owes its importance to the fact that art and writing were one in ancient Egypt; the complementary scenes and inscriptions were laid out with a logic that not only affects the texts of a single structure but may also affect subordinate monuments in the vicinity of that structure. By taking note of this factor, one may sometimes establish the correct relationship of monuments that have strayed from their original location, or one can establish the existence of a structure that has completely vanished. Thus the reversed orientation of the architrave belonging to a ka-house of Pepy I at Bubastis clearly indicates that this was a subordinate structure, and that the inscriptions in question are aligned with those of the principal temple of Bastet, which was eclipsed by later construction.¹⁴ Again, even though only a few courses

9. Schenkel, *Frühmittelägyptische Studien*, pp. 124–130; cf. Clère, *Revue d'Égyptologie* 7 (1950), 25–26, 30–31, and Fischer, *Dendera*, pp. 74–77; in each case the Thinite Nome emerges as the pivotal area between the “Middle Nomes” and southern Upper Egypt.

10. As exemplified by the writings of  and  discussed in a forthcoming brief communication, “Des chanteurs militaires à Gébélein et Hatnoub?,” to be published in *Revue d'Égyptologie*.

11. Apart from the brief notes published by Newberry (Univ. of Liverpool, *Annals of Anthropology and Archaeology* 4 [1911], 99–120), there is the Sixth Dynasty tomb recorded by Vandier, *ASAE* 36 (1936), 33–44.

12. Excavations of Jesus López, as reported by Leclant, *Orientalia* 38 (1969), 258–259; J. López, *Oriens Antiquus* 14 (Rome 1975), 57–78; and the exhibition catalogue *Arte faraonico* (Madrid-Zaragoza-Barcelona 1975–1976), pp. 72–85.

13. Donald Hansen, *JARCE* 4 (1965), 31–37; 6 (1967), 5–16, and Christine Lilyquist Soghor, *ibid.*, 16–32. Several monuments from Busiris, ranging in date from the end of the Old Kingdom to the early Middle Kingdom, will be published in *MMJ* 11.

14. *AJA* 62 (1958), 331–332, commenting on the architrave inscription published by Labib Habachi, *Tell Basta*, Figs. 2 and 3, following pp. 14 and 18; also Fischer, *Egyptian Studies* II, §12 (1), for which see note 38 below.

of masonry are all that is left of the temple gateway at the pond of Mit Rahineh, the orientation of the inscription tells us at a glance that the sanctuary was situated towards the east, beyond the remains of a columned hall.¹⁵ We can tell a right-hand obelisk from a left-hand one,¹⁶ and we can reassemble the parts of a rectangular coffin of the Middle Kingdom, even if it has no more than a single band of inscription on the outside.¹⁷

A second aspect of the architectural context has to do with the somewhat different treatment that is given to texts in various parts of a tomb or temple (notably the use of normal relief and relief *en creux*)¹⁸ or in the substructure and superstructure of an Old Kingdom tomb. The texts of royal burial chambers of the Sixth Dynasty and of coffins—the latter both royal and nonroyal—are uniformly painted green or blue, and the subterranean texts display a number of procedures designed to eliminate or curtail the figures of men and animals.¹⁹ The use of monochrome hieroglyphs was sometimes extended to the false door,²⁰ which represented the link between the chapel and the burial. Thus certain writings,

15. As illustrated in *Artibus Asiae* 24 (1961), Fig. 3 following p. 48.

16. R. Engelbach, *ASAE* 29 (1929), 25–30.

17. Lacau, *Les Sarcophages antérieurs au Nouvel Empire* I, p. iii.

18. As exemplified by the temple of Ramesses III at Medinet Habu, where the use of true relief is confined to the rear of the sanctuary (Room 38) and the chambers to the left of this (44–45) and to the right (39): *Medinet Habu* VII (Univ. of Chicago, *Or. Inst. Pub.* 93 [Chicago 1964]), Pls. 508–511, 525–528. P. Lacau has discussed the use of true relief and relief *en creux* on false doors, *Revue d'Égyptologie* 19 (1967), 39–50, and Richard Fazzini has dealt with the subject at large in an unpublished M. A. dissertation at the Institute of Fine Arts, New York University.

19. P. Lacau, *ÄZ* 51 (1913), 1–64; *ASAE* 26 (1926), 69–81; B. Gunn in Firth and Gunn, *Teti Pyramid Cemeteries* I, pp. 171–177. This custom begins at Saqqara and does not seem to be attested prior to the pyramid texts of Unis; thus an earlier sarcophagus from Giza shows the word *rmꜥ* “people” with the usual determinatives   (Hassan, *Giza* I, Pl. 64). The truncated birds that are characteristic of the very late Middle Kingdom (e.g.  for ) evidently make their earliest appearance on the funerary equipment of *Nfrw-Pth*, the daughter of Amenemhet III (W. M. F. Petrie, *Kahun, Gurob, and Hawara* [London 1890], Pl. 5; N. Farag and Z. Iskander, *The Discovery of Neferuptah* [Cairo 1971], *passim*).

20. Yellow hieroglyphs on a red background imitating wood (cf. Junker, *Giza* VII, pp. 241–242; XI, 54; also Zaki Saad, *ILN*, Sept. 28, 1940, p. 413, Fig. 5) or green on red imitating granite (cf. Wm. Stevenson Smith, *A History of Egyptian Sculpture and Painting in the Old Kingdom* [London 1946], p. 259). For examples of the latter, see M. A. Murray, *Saqqara Mastabas* I (London 1905), p. 26; Davies, *Deir el Gebrāwi* II, Pl. 11; T. G. H. James and M. R. Apton,

notably those employed for “west” (𓂏 for 𓂏)²¹ and “Hathor” (𓁿 𓂏 𓁿 for 𓁿)²² were first used in the burial chamber, then on the false door, and finally on stelae which may or may not have been so directly related to the burial shaft. The same is true of the epithet “Osiris” preceding personal names.²³

The **context of ownership** may also affect inscriptions in one way or another. The identity of the tomb owner in the Old Kingdom seems to have pervaded his mastaba to the extent that his statues were occasionally left uninscribed.²⁴ And, at least partly for the same reason, the name of his wife frequently shows a determinative in situations (such as the inscriptions of statues) where the determinative is omitted from his own name.²⁵

To a certain extent the last feature might also be explained in terms of **social context**, but that term is more clearly applicable to the distinction between royal and nonroyal persons and between men and the gods. A particularly interesting result of the first distinction is the use of phonetic signs instead of the ideograph for “Re” (𓂏 instead of 𓂏) in non-

Mastaba of Khentika Called Ikhekhi (London 1953), p. 22. The limestone sarcophagus of the last, similarly has green inscriptions, but the background may have been left white, imitating alabaster (*ibid.*, p. 31); cf. the limestone sarcophagus of 𓂏𓂏-𓂏-𓂏 (Firth and Gunn, *Teti Pyramid Cemeteries* I, pp. 17, 98), and the limestone false door described by M. A. Murray and H. Petrie, *Seven Memphite Tomb Chapels* (London 1952), p. 13 (§66). The blue monochrome hieroglyphs of the Unis pyramid texts are carved on alabaster (calcite) within the burial chamber proper, and the inscriptions of alabaster objects from burial chambers are similarly blue (e.g. Cairo CG 1339) or green (MMA 11.150.1A)—in both cases these are slabs listing the seven unguents.

21. Early examples of 𓂏 in the burial chamber, 𓂏 aboveground: James and Apted, *Mastaba of Khentika*, Pls. 40 and 19 (temp. Pepy I); W. M. F. Petrie, *Denderah 1898* (London 1900), Pls. 5A and 6 (top left). Earliest known example on false door: Davies, *Deir el Gebrāwi* II, Pl. 11 (temp. Pepy II). This form may derive from the hieratic form of 𓂏 (Möller, *Hieratische Paläographie* I, no. 237; Paule Posener-Krieger and J. L. de Cenival, *Hieratic Papyri in the British Museum: Abu Sir Papyri* [London 1968], Pal. Pl. 5 [H6]), but it does not seem to occur as a hieratic sign in its own right before the end of the Middle Kingdom (Möller, *op. cit.*, no. 579). Lacau, *ÄZ* 51 (1913), 59, mentions this sign among his Middle Kingdom examples of curtailed hieroglyphs. Note also that the substitution of 𓂏 for 𓂏 is simply an alternative writing and evidently did not begin in the burial chamber; for a Dyn. IV example aboveground, see Hassan, *Giza* IV, Fig. 114, p. 163.

22. Fischer, *Dendera*, p. 90 (16).

23. *ÄZ* 90 (1963), 37.

24. *MMJ* 8 (1974), 14.

25. *Ibid.*, 7–25.

royal names of the Old Kingdom, and the similar replacement of the ideograph by phonetic signs in the writing of “Horus” (𩉗𩉗𩉗 instead of 𩉗𩉗).²⁶ In general, as in the case of the aforementioned Osiris-epithet, the criterion for dating is that point, in the slow process of “sinkendes Kulturgut,” when a certain feature gravitates from the lofty level of gods and kings to the lowly level of ordinary men. A good example is provided by the determinative 𩉗, which follows the names of gods in the Twelfth Dynasty; the 𩉗-sign is similarly added to the determinatives of nonroyal names (𩉗, 𩉗) only after the New Kingdom, during the Libyan Period.²⁷

The **context of technology or fashion** is what, for want of a more elegant term, I shall employ to describe the changes in hieroglyphs that can be attributed to current fashion in clothing, or to alterations in the forms of implements. The changes in clothing are hardly surprising, since the hieroglyphs depicting human beings are among the most variable. In the case of implements, the corresponding hieroglyph may depart from reality and become stylized once the use of the original object has been discontinued (e.g. 𩉗 and 𩉗, the harpoon)²⁸ or it may temporarily assume the current form of the altered implement (𩉗 for 𩉗, the scribal kit),²⁹ or it may initially assume a current form (𩉗 for 𩉗, the butcher’s knife) and then become increasingly stylized (𩉗 resembling the leg of a chair), after which it returns to the form it had originally.³⁰ All of these permutations are of interest as dating criteria: 𩉗 appears in the Twelfth Dynasty, 𩉗 towards the beginning of the Eleventh Dynasty, 𩉗 in the Amarna Period and 𩉗 most frequently in Dynasties XX–XXII.³¹

Finally there is the **immediate context** of the inscription itself—its function and the presence of adjacent representations; and since the

26. For 𩉗 cf. *Wb.* II, p. 401, and *MMJ* 5 (1972), p. 19, n. 59. For 𩉗 cf. *Wb.* III, p. 122.

27. *ÄZ* 100 (1973), 26–27. Variants such as 𩉗 are also attested for kings early in Dyn. XVIII, albeit rarely: e.g. Cairo CG 34007, line 16 (Tuthmosis I).

28. Discussed in my forthcoming *Egyptian Studies I: Varia*, Pt. 12.

29. Fischer, *Dendera*, p. 179, and *Inscriptions from the Coptite Nome*, p. 26.

30. See note 28 above.

31. Cf. A. Gardiner, *Egyptian Grammar* (3rd ed., rev. [London 1957]), p. 439: “. . . in contexts where an object in contemporary use is intended, the determinative employed to designate it is sometimes brought up to date, while in other employments the corresponding sign retains an archaic appearance. . . .” Among other examples he cites 𩉗 “axe” where the determinative 𩉗 (T7*) replaces the older form 𩉗 (T7).

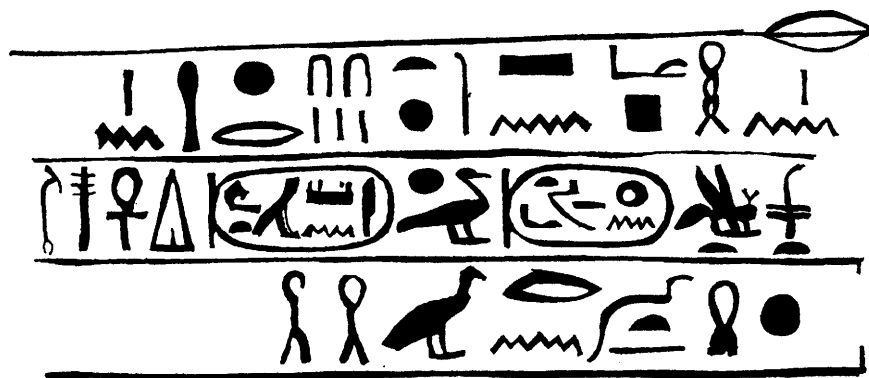


Fig. 2

are especially apt to be larger than adjacent signs³³ and that is most particularly true of the name-determinative at the end of an architrave or at the bottom of a door jamb. An enlarged determinative of this kind was relatively resistant to change, as compared with representations in other contexts. A case in point is provided by , a man standing in an attitude of adoration, his hands raised before him. This attitude occurs at the beginning of the Fifth Dynasty in a well-known scene showing foreigners in the presence of King Sahure. But it was evidently not used as a large-scale determinative, following the name of the tomb owner, before the very end of the Old Kingdom.³⁴

The meaning of an ideographic element may also be graphically em-

date ranges from the middle of the Fourth Dynasty to the first half of the Fifth. A very small Old Kingdom monument, perhaps dating to the Fifth Dynasty shows a similarly enlarged calf in the title of an inspector of cattle: Harvard Univ., Fogg Museum, *Ancient Art* (exhibition catalogue, Dec. 28, 1954–Feb. 15, 1955), no. 3, Pl. 2. On Middle Kingdom coffins the hieroglyphs representing the eye and head are similarly enlarged in the vicinity of the mummy's head: Borchardt, *ÄZ* 35 (1897), 116. On an early Eighteenth Dynasty stela, Cairo CG 34108 (Lacau, *Stèles du Nouvel Empire* I, Pl. 52) the incised offering formula, which ends with *n kꜣ n* "for the spirit of," is followed by a large boat in relief. This must represent the owner, whose name is perhaps to be read       "He who belongs to the bark." At any rate the previous reading as       (*PN* I, 127 [8]) is mistaken, for   is evidently the wife's name (cf. *PN* I, 146 [10]), and note that     in *PN* I, 102 (5) evidently refers to the same individual.

33. Cf. also the example shown in *JEA* 59 (1973), p. 44, Fig. 1, and the oversized determinative of the goddess *Št* in Davies, *Deir el Gebrawi* II, Pl. 5.

34. Cf. Hellmuth Müller, *MDIK* 7 (1937), 94; L. Klebs, *Die Reliefs und Malereien des mittleren Reiches* (Heidelberg 1922), p. 177; C. N. Peck, *Some Decorated Tombs at Naga ed-Dêr* (University Microfilms, 1959), p. 100; H. Goedicke, *ASAE* 55 (1958), 48–49.

phasized in some other fashion; in inscriptions at Semna recording the height of the annual flood, the sign $\ominus$ meaning "level" is floated to the top of the marginal frame where it assumes the form $\ominus$ (Fig. 2).³⁵

The complementary relationship of representations and inscriptions is most clearly observed in scenes of daily life dating to the Old Kingdom, where determinatives are frequently omitted from the inscription if these are supplied by the accompanying representation.³⁶ While such omissions are of little practical value for dating, they illuminate the interconnection of writing and art that is the underlying theme of this paper. In addition, of course, the iconographic variations of representations have sometimes influenced the forms of hieroglyphs in the adjacent inscriptions, and conversely, palaeographic variations could be transmitted to representations.³⁷

Datable criteria may also be found in the relative location of adjacent signs. Certain peculiarities of orientation tended to appear at certain periods,³⁸ and the same is true of spacing. Twelfth Dynasty stelae, in which several names are listed in horizontal lines, frequently place all the name-determinatives at the extreme left or bottom, leaving gaps of varying length between them and the names to which they belong.³⁹ In

35. From D. Dunham and J. M. A. Janssen, *Second Cataract Forts I: Semna Kumma* (Boston 1960), R.I.K. 1 (p. 139 and Pl. 95 [C]), 3 (p. 139 and Pl. 96 [A]), 29 (p. 145 and Pl. 98 [B]); cf. R.I.S. 19 (p. 135). A similar example from Naga ed-Deir shows the mouth superimposed on a line indicating the Nile level, below the inscription: A. B. Elsasser and V.-M. Frederickson, *Ancient Egypt. An Exhibition at the Robert H. Lowie Museum of Anthropology of the University of California, Berkeley, March 25-October 23, 1966*, p. 64.

36. Gunn in Firth and Gunn, *Teti Pyramid Cemeteries I*, p. 171, n. 2. The same distinction may be observed in the Middle Kingdom and later, but it was gradually obscured by the increasing use of "redundant determinatives"; cf. *MMJ* 8 (1974), 23.

37. An example of the latter is discussed in *JNES* 21 (1962), 50-52, and, for an example of the former, *ibid.*, n. 8. Note also the epithet  (P. E. Newberry, *Beni Hasan I* [London 1893], Pl. 32), which is evidently to be read *rh n nswt sdty kms.f* "acquaintance of the king, foster child of his creation"; the *kms*-sign is patterned on a throwstick in the adjacent scene, which shows the owner fowling in the marshes. For the same reason this sign is horizontal as determinative of *rm* in Davies, *Deir el Gebrâwi I*, Pl. 5, as compared with the more usual vertical orientation (e.g. Blackman, *Meir V*, Pl. 28).

38. To be dealt with in my forthcoming work, *The Orientation of Hieroglyphs (Egyptian Studies II and III)*.

39. Cf. H. Grapow, *Sprachliche und schriftliche Formung ägyptischer Texte* (Glückstadt-Hamburg-New York 1936), pp. 50-51.

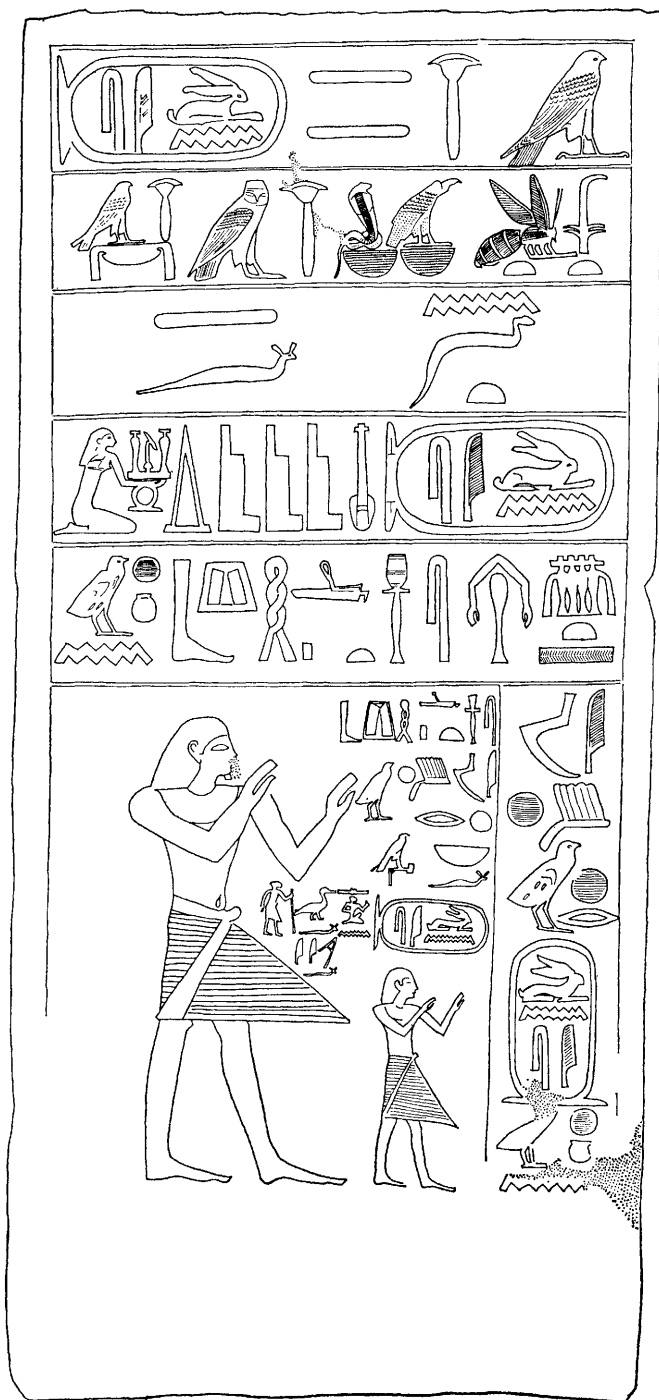


Fig. 3

the same period hieratic may display elongated signs in headings, so as to extend a greater distance than is normal.⁴⁰ Possibly this feature is also to be recognized in an inscription of *Hnw* beside the Unis Causeway (Fig. 3). Since the same inscription shows  as an enlarged determinative, and since an adjacent inscription of the same individual shows the use of  for the suffix 1st pers. sing. pronoun after dative , it is difficult to believe it is not later than the Sixth Dynasty.⁴¹ The occurrence of a few suspiciously late features evidently must be allowed to outweigh the overall conformity to Old Kingdom style, although it must be conceded that the degree of conformity is remarkable, as is the workmanship. Figure 3, made from a photograph,⁴² does not show all of the fine detail in the hieroglyphs. In considering this question one must keep in mind the fact that old traditions, as well as a relatively high standard of workmanship, persisted at Saqqara much longer than in the provinces.

So much for contexts, ranging from wider to more narrow perspectives. Yet another kind of context remains to be discussed, however, and it is of a rather different order, having to do with the scribe's purpose and with the **choice of materials** which was dictated by that purpose (Fig. 4). Sir Alan Gardiner distinguishes three styles of hieroglyphs which he describes as follows, presumably with reference to the Middle Kingdom and later:

40. E. g. BM Pap. 10567 (T. G. H. James, *Heḳanakhte Papers and Other Early Middle Kingdom Documents* [New York 1962], Pl. 28); cf. a spaced-out heading which is, to be sure, of later date—early Dyn. XVIII: Edwards, *JEA* 51 (1965), p. 25 and Pl. 11 (2).

41. Cf. *JEA* 60 (1974), p. 247, n. 3, and H. Altenmüller, *SAK* 1 (1974), 6–8, who gives reasons other than these for “eine Spätdatierung des Grabes an das Ende des Alten Reiches.” Another late feature, which is also difficult to date with any precision, is the offering formula *ḥtp di nswt n kꜣ n Hnw*. This is paralleled in another chapel along the Unis causeway, on the unfinished false door of *Hry-mrw* (cf. Altenmüller, *op. cit.*, p. 4 [Dok. 1]; to be published in Selim Hassan, *Excavations at Saqqara 1937–1938*, Pt. III, Fig. 38b). It is not, as Barta claims, attested for the 4th year of Merenre (*Aufbau und Bedeutung der altägyptischen Opferformel* [*Ägyptologische Forschungen* 24, Glückstadt 1968] p. 33, n. 3, and cf. p. 39, n. 4); the graffito in question (W. M. F. Petrie, *A Season in Egypt 1887* [London 1888], Pl. 3 [81]) is certainly later, as shown by the mode of dating, the writing of *imy-r pr wr* (itself a Dyn. XII title), and the epithet *mꜣr-ḥrw*. The cartouche is evidently reversed and probably should be read , i.e. Amenemhet III (for which cf. the same cartouche *ibid.*, no. 84).

42. A photograph is reproduced by Siegfried Schott, “Zur Krönungstitulatur der Pyramidenzeit,” *Nachrichten der Akademie der Wissenschaften in Göttingen I, Phil.-hist. Klasse*, 1956, Pl. 3 following p. 66.

(1) "In temples and tombs where their decorative effect was of account the hieroglyphs were often executed with the most elaborate detail and beautifully coloured . . ."

(2) "On stelae of stone and the like the signs are incised, or more rarely in raised relief, without interior markings . . ."

(3) "Upon papyrus the outlines were, on the other hand, abbreviated to a very considerable extent."⁴³

The last category, sometimes known as "semi-cursive" or "book-writing," is also found in the Old Kingdom where it serves for the headings of hieratic accounts,⁴⁴ much more rarely for inscriptions attached to painted scenes,⁴⁵ and occasionally for inscriptions that were incised with a hard point on stone.⁴⁶ This semi-cursive style became still more cursive in ink inscriptions during the Middle Kingdom; those of the

43. Gardiner, *Egyptian Grammar*³, §8 and Frontispiece, Pl. 1. I have altered the sequence in which these descriptions are presented.

44. Posener-Kriéger and de Cenival, *Abu Sir Papyri*; more elaborate forms occur, for example in Pls. 1, 2; less elaborate forms occur in Pls. 3, 20-22, etc.

45. Junker, *Gfza IV*, Pls. 3, 4, 5, 7, 8, 9, 10, 16.

46. E.g. Cairo CG 1305 (A. Mariette, *Les Mastabas de l'Ancien Empire* [Paris 1889], p. 164) and 1307; Firth and Gunn, *Teti Pyramid Cemeteries II*, Pl. 13 (C, D).

Fig. 4 (opposite). Incised hieroglyphs (3a) compared with less cursive forms (1-2) and more cursive (3b-4)

1. All based on P. Lacau and H. Chevrier, *Une Chapelle de Sésostri I^{er}*, Plates (Cairo 1969), except , which is from Blackman, *Meir III*, Pl. 3 (restored).

2. Mostly based on an early Twelfth Dynasty stela: Anthes, *ÄZ* 65 (1930), 108 ff. and Pl. 7 (Berlin 22820).

3a. Mostly based on the late Twelfth Dynasty box shown in Earl of Carnarvon and H. Carter, *Five Years' Explorations at Thebes* (London 1912), Pl. 49; hieroglyphs incised in wood and ivory (MMA 26.7.1438). The sign  is from Nagib Farag and Zaky Iskander, *Discovery of Neferuoptah*, p. 15, Fig. 10. The left-hand form of  is from a plaque from the pyramid of Sesostris I at Lisht: *BMMA* 28 (April, 1933, Section II), Fig. 10, p. 12; this is discussed in my forthcoming *Egyptian Studies I: Varia*, Pt. 12 (3).

3b. All from the Twelfth Dynasty coffin of *Hty* from Lisht, MMA 32.1.133, except , which is from Gardiner, *JEA* 41 (1955), 9 ff. and Pl. 5.

4. All from Möller, *Hieratische Paläographie I*.

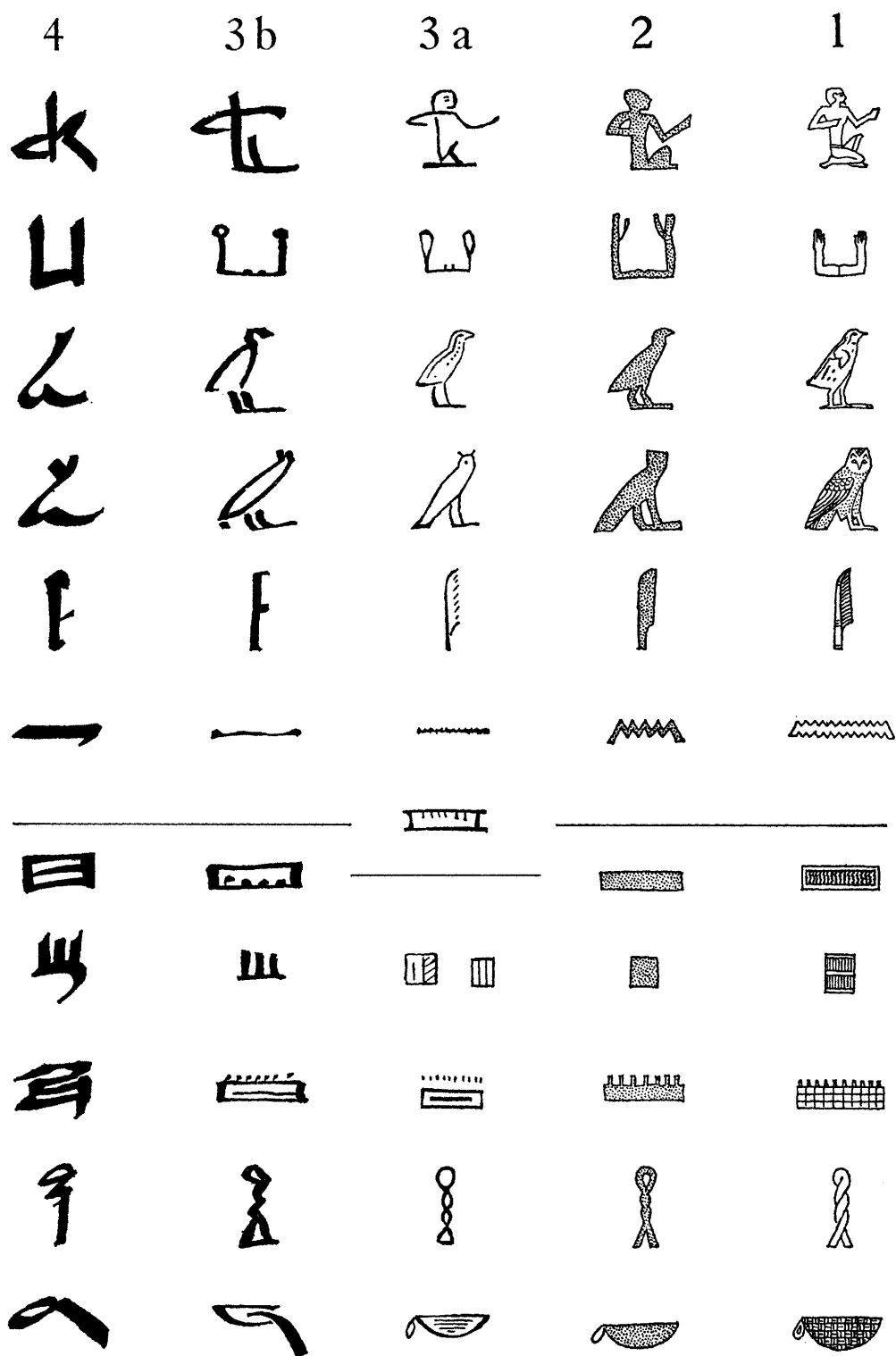


Fig. 4

Twelfth Dynasty and later may appropriately be called 3b,⁴⁷ while the older style, which persisted in inscriptions incised on metal and wood may be called 3a.⁴⁸ The latter was also used, with scarcely any modification, in the early Eighteenth Dynasty,⁴⁹ down to the Amarna Period, after which it seems to have been somewhat less frequent. The later New Kingdom inscriptions incised in wood tend to be heavier in style and the signs are often completely filled with yellow pigment.⁵⁰ But a good example of 3a style occurs on a stone cubit rod, which is as late as the Libyan Period, bearing the cartouche of an Osorkon.⁵¹ Both of the semi-cursive forms (3a and b) characteristically use short strokes or marginal stippling to summarize detail; this sort of summarization occurs only very occasionally in hieratic.⁵²

47. The forms shown in the tabulation are based on the coffin texts of MMA 32.1.133, dating to the Twelfth Dynasty (cf. Hayes, *Scepter of Egypt* I, p. 316, Fig. 205). They are not very different from the cursive forms of the Thirteenth Dynasty Ramesseum papyri published by K. Sethe in *Dramatische Texte zu altägyptischen Mysterienspielen* (Leipzig 1928) and by Gardiner in *JEA* 41 (1955), 9–17. It should be pointed out, however, that some Twelfth Dynasty coffins show a cursive style that is closer to the earlier forms: e.g. Cairo CG 28041 and 28073 (Lacau, *Sarcophages antérieurs au Nouvel Empire* I, Pls. 17, 21).

48. On metal: Bisson de la Roque, *Trésor de Tod*, Pl. 1; Farag and Iskander, *Discovery of Neferu-ptah*, pp. 14–15, Figs. 8–10. On wood: Carnarvon and Carter, *Five Years' Explorations at Thebes*, Pl. 49.

49. On metal: H. E. Winlock, *The Treasure of Three Egyptian Princesses* (New York 1948), Pls. 17, 36. On wood: *BMMA* 27 n.s. (1968), 90. On stone: L. Bull, *BMMA* 27 (1932), 130, and Hayes, *Scepter of Egypt* II, p. 275, Fig. 168.

50. E.g. Hayes, *Scepter of Egypt* II, p. 241, Fig. 146 (shawabty of Amenophis III, MMA 15.2.10); W. Kaiser, *Ägyptisches Museum Berlin* (Berlin 1967), no. 778 (Berlin 6910). This tradition evidently has much older beginnings, however; cf. note 20 above. For the persistence of 3a style on metal see Petrie, *Denderah 1898*, Pl. 24 (6), a ewer naming Ramesses II (Cairo CG 3445).

51. Cairo T $\frac{31}{22} \frac{12}{1}$: L. Borchardt, *Altägyptische Zeitmessung* (Berlin 1920), Pl. 11 (2) (in E. von Bassermann-Jordan, *Geschichte der Zeitmessung*), and Adelheid Schlott, *Die Ausmaße Ägyptens nach altägyptischen Texten*, Pls. 15–17. But relatively little of this cursive style is to be found on metal objects from the tomb of Psusennes: Montet, *Nécropole Royale de Tanis* II, pp. 84–85, Figs. 31–32; pp. 97–99, Figs. 38–41; p. 101, Fig. 42; p. 163, Fig. 59. Cf. also a gold decree case of the Twenty-second Dynasty, which only shows the cursive form of $\sim$ (Fitzwilliam Museum E 12.1940: John Ray, *JEA* 58 [1972], 251–253 and Pl. 43 [2]). Possibly the cubit rod consciously imitates an earlier example such as the one illustrated by Hayes, *Scepter of Egypt* II, p. 413, Fig. 263 (MMA 41.160.102).

52. Cf. *Egyptian Studies* I: *Varia*, Pt. 12 (3) and Fig. 24. The use of marginal stippling does appear in archaic ink inscriptions, however, and these might be considered the earliest form of

Obviously one must take account, in studying hieroglyphic palaeography, of these separate lines of development, especially since the semi-cursive forms occasionally appear on stone and other hard materials. Everyone who has any familiarity with ancient Egyptian writing will be aware that there is greater similarity between hieratic forms of different periods than there is between hieratic and hieroglyphic forms of the same period. It may not be equally well appreciated, however, that the same statement is true of cursive hieroglyphs as compared with the standard forms; in each case there is a separate and distinct tradition.

One must also take account of the occasional intrusion of the more cursive forms, including hieratic, in undetailed hieroglyphic inscriptions of type 2. Some hieratic intrusions of this kind may be cited from the Old Kingdom,⁵³ when semi-cursive forms (type 3a) were also occasionally used, as stated previously, in stone inscriptions—particularly in stone inscriptions that were small in scale and hastily executed.⁵⁴ Intrusive hieratic forms became much more common in Eleventh Dynasty inscriptions at Thebes and in the neighboring regions.⁵⁵ And such intrusions were apparently even more common after the reunion of Egypt, which marked the beginning of the Middle Kingdom. At this time,⁵⁶ and again in the course of the Twelfth Dynasty and later,⁵⁷ stelae were sometimes inscribed almost wholly in an incised form of hieratic. Hieroglyphic inscriptions on stelae and statues of the early New Kingdom

hieratic; cf. P. Lacau and J.-P. Lauer, *Fouilles à Saqqara: La Pyramide à Degrés V* (Cairo 1965), Pl. 37 (2); p. 52, Fig. 75 (*wdb*); p. 56, Fig. 80; p. 74, Fig. 139.

53. Some rare examples: 𓆎 for 𓆏 (Mariette, *Mastabas*, p. 106); 𓆐 for 𓆑 (*ibid.*, p. 96; S. Curto, *Gli Scavi Italiani a El-Ghiza* [Rome 1963], Pl. 2); 𓆒 for 𓆓 and 𓆔 for 𓆕 (Cairo CG 1634: Grdseloff, *ASAE* 42 [1943], 28, 31).

54. A typical example: C. Fisher, *The Minor Cemetery at Giza* (Philadelphia 1924), Pl. 48 (3).

55. *ÄZ* 100 (1973), p. 17, Fig. 1 (D, H, L, M). For an earlier example see Fischer, *Inscriptions from the Coptite Nome*, no. 17, Pl. 16 (bottom).

56. BM 1724 (James, *British Museum Quarterly* 20 [1955–56], 89 and Pl. 30 [b]); this can hardly be earlier than the very end of Dyn. XI, as shown by 𓆎 (Schenkel, *Frühmittelägyptische Studien*, §4a) and 𓆏 (*ibid.*, § 13g). BM 1628 (*Hieroglyphic Texts* V, Pls. 1–2) is probably the same date.

57. Dynasty XII and after: Cairo CG 20458; BM 220 (*Hieroglyphic Texts* IV, Pl. 43); BM 226 (*ibid.*, III, Pl. 3). Second Intermediate Period: BM 228 (*ibid.*, II, Pl. 49); BM 230 (*ibid.*, III, Pl. 1); BM 219 (*ibid.*, III, Pl. 2). The last examples are very similar in style and composition.

commonly show semi-cursive forms such as  (or ) ,  ,  ,⁵⁸ but it was not until the Libyan Period that incised hieratic really came into its own.⁵⁹

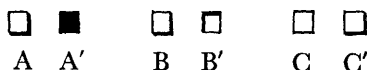
When all of these considerations have been reviewed, it must appear obvious that **hieroglyphic palaeography** is a much less straightforward matter than hieratic, and that a simple chronological exposition of this subject, analogous to Georg Möller's tabulation in his *Hieratische Paläographie* is virtually impossible unless some features are ignored in order to facilitate the comparison of other features. For even if one takes the most practical approach, adjusting all the signs to more or less the same common denominator of scale, and drawing them in much the same fashion regardless of whether they are carved in relief or *en creux*,⁶⁰ or incised with a sharp point, or painted, one must still sort out the main categories, distinguishing the cursive forms that follow their own line of development. When all of that has been done, there remains the problem of arranging the comparisons not only in chronological order, but in some sort of topographical order. And one is still left with a number of other details, such as color.

I do not mean to say that an overall comparison of hieroglyphic signs, arranged chronologically, would not be of great value, but rather that

58. All three features well illustrated by Florence 2496 (S. Bosticco, *Stele Egiziane del Nuovo Regno* [Rome 1965], no. 4). This usage explains "les  étrangement fermés du bas" which Sauneron notes on an early New Kingdom statue, *Kêmi* 19 (1969), 270.

59. E.g. the Dakhla stela in the Ashmolean Museum (Gardiner, *JEA* 19 [1933], 19-30); Jac. J. Janssen, *JEA* 54 [1968], 165-172; the British Museum tablet 138 shown in I. E. S. Edwards *et al.*, *A General Introductory Guide to the Egyptian Collections in the British Museum* (Oxford 1964), p. 77, Fig. 26 (and G. Möller, *Hieratische Lesestücke für den akademischen Gebrauch* III [Leipzig 1910], pp. 33-34; also C. Robichon and A. Varille, *Le Temple du scribe royal Amenhotep fils de Hapou I* [Cairo 1936], Pl. 1); Cairo J 85647 (Bakir, *ASAE* 43 [1943], 75-81); Brooklyn 67.118, 67.119 (Kitchen, *JARCE* 8 [1969-70], 59-67). Also later examples, such as MMA 55.144.6, dating to Dyn. XXVI (N. E. Scott, *BMMA* 15 n.s. [1956], 86 [14]).

60. It must be acknowledged that a simple outline is increasingly being adopted by epigraphers to record both types of reliefs. In the past this distinction has sometimes been noted in a variety of ways. Taking the sign  as our model, we may compare A and A' (Murray, *Saqqara Mastabas* I; Hassan, *Giza*); B and B' (Firth and Gunn, *Teti Pyramid Cemeteries*; T. G. H. James, *Hieroglyphic Texts . . . in the British Museum* I, 2nd ed. [London 1961]), as well as less logical schemes such as C and C' (*Medinet Habu* VII: the former shown in Pls. 526-527; the latter *en creux*, *passim*).



its limitations should be recognized at the outset, and that it should be planned accordingly. Such a survey should be considered as only one of a number of various types of comparative studies. These supplementary studies might profitably include a survey of colored hieroglyphs, such as those made by Caroline Ransom Williams and William Stevenson Smith,⁶¹ extending their research to include periods beyond the Old Kingdom, and presenting all the evidence more graphically. The rather delicate question of regional peculiarities should not be reduced to a palaeographic comparison; for it must be reinforced by the study of other iconographic features, as well as of philological evidence such as phraseology. This means that the First Intermediate Period should probably be handled separately. The semi-cursive forms might also be given special treatment, although the publication of inscriptions on utensils and minor art is at present so inadequate that this task will require a good deal of wide-ranging research in many museums.

For those aspects of palaeography which are more concerned with context than with form, there can, of course, be no alternative to a completely separate study. The first installment of such a study, dealing with reversals, will be published in the near future, and much of the work has been done on its sequel, dealing with retrograde inscriptions.⁶² A special study might also be devoted to the name-determinative, for here again it is not so much the form that is important as its occurrence in a particular context.⁶³ More too might be done with the incidence and dating of curtailments and substitutions in funerary texts. And finally, one would like to see more frequently and regularly, the inclusion of a

61. Caroline Ransom Williams, *The Decoration of the Tomb of Per-néb* (New York 1932), pp. 85–87 (tabulation of color conventions covering all the decoration of this tomb); William Stevenson Smith, *History of Egyptian Sculpture and Painting in the Old Kingdom*, pp. 366–382 (tabulation of signs). See also Elisabeth Staehelin, “Zu den Farben der Hieroglyphen,” in *Göttinger Miszellen* 14 (1974), 49–53, where she provides a good survey of the subject and describes a forthcoming survey of color conventions in the Valley of the Kings.

62. Cited above, in note 38; cf. also “L’orientation des textes” in *Textes et Langues de l’Égypte pharaonique* I (*Bibl. d’Études* 64, Pt. 1; Cairo [1972]), pp. 21–23.

63. In this connection one may also take note of the observations that have already been made concerning the dissimilation of forms in plurals that repeat the determinative: R. O. Faulkner, *The Plural and Dual in Old Egyptian* (Brussels 1929), §9; Drioton, *ASAE* 49 (1949), 57–68; van de Walle, *Ägyptologische Studien* (Grapow Festschrift, Berlin 1955), 366–378.

review or index of unusual hieroglyphic forms in all publications of new inscriptions.⁶⁴

The **emblematic use** of hieroglyphs provides still another subject that is closely related to palaeography, yet distinct from it. As a recent article has demonstrated,⁶⁵ it brings in several familiar themes. Since the ancient Egyptians used two-dimensional representations and writing in a complementary way, these two elements functioned as discrete elements and, during the classical periods of the Old and Middle Kingdoms and the early Eighteenth Dynasty, these elements were less often fused into a single entity; a striking example is provided by the representation of Hesy-re holding a *hs*-jar (𓆎) in one hand and, in the other, a round object that possibly alludes to the other part of his name (⊙). This sort of emblematic complex is known from the Archaic Period, but it did not become common again until the mid-Eighteenth Dynasty when it began to be used in the presentation of royal names. The same idea was then taken up by nonroyal persons in the Twenty-second Dynasty.

The discrete use of isolated hieroglyphs as emblems is more common in every period and for that reason provides more numerous criteria for **dating**. The pair of *wꜥt*-eyes, for example, appear within the niches of false doors belonging to the Sixth Dynasty and to the Heracleopolitan Period. At some point, not long before the reunification of Egypt, in Dynasty XI, they moved up to the crossbar above the niche.⁶⁶ Again, in the combination 𓆎⊙𓆎 which occurs on stelae dating to the second half of the Twelfth Dynasty and later, the *šn*-sign (⊙) is on the same baseline as the pair of eyes that flank it, whereas it characteristically assumes

64. This detail seems to be receiving somewhat more consideration in current publications such as G. Goyon, *Nouvelles Inscriptions rupestres du Wadi Hammamat* (Paris 1957), pp. 180–184; M. Tosi and A. Roccati, *Stele e altri epigrafi di Deir el Medina* (Turin 1972), pp. 233–235; Lacau and Lauer, *La Pyramide à Degrés V*, pp. 112–114; and the promise of such an index in H. Altenmüller and A. M. Moussa, *The Tomb of Nefer and Ka-hay* (Mainz am Rhein 1971), p. 46 (where a list of colored hieroglyphs is already provided).

65. *MMJ* 5 (1972), 5–23.

66. Fischer, *Inscriptions from the Coptite Nome*, p. 40; Fischer, *Dendera*, p. 226. The latest known example of the older position may be Louvre stela C 15 (Drioton, *Revue d'Égyptologie* 1 [1933], Pl. 9) where it appears on a small representation of a false door at the bottom of the stela. It seems possible, however, that this position survived even later, at the end of the Eleventh Dynasty, on some false doors from Busiris, as pointed out in the forthcoming article on that site in *MMJ* 11.

a higher level on stelae of the early New Kingdom: .⁶⁷

It is true that the value of all such criteria lies primarily in providing a *terminus a quo*; they generally indicate how late the date of a monument must be and more rarely, usually less reliably, suggest a *terminus ad quem*. That is particularly true of ancient Egypt, where an effort was made to adhere to tradition and, once that tradition had slipped away, to return to it again. But it is also true that some forms, or adaptations of forms, came only gradually into use, beginning as an exceptional variant and eventually becoming the norm. Since a so-called first occurrence is, in any case, only the first we know of, and may be considerably later than the point at which it was actually introduced, the relative incidence of the criterion is of some importance. Thus we see a very gradual increase in the use of  in the Twelfth Dynasty: first as a writing of *n* in the place of  (attested in the reign of Sesostri I)⁶⁸ and as an alternative writing of *bity* in place of  (attested in the reign of Sesostri I and Sesostri II and III)⁶⁹ and then—apparently from the end of Dynasty XII onward—much more frequently in titles such as . Similarly the use of  for *wr* increased considerably during the same dynasty, and became even more common thereafter.⁷⁰ Again, the omission of the initial  of *imsh* is rarely found before the end of the Old Kingdom except when it is preceded by *nb*. But there are enough exceptions to this rule to show that it is a relative criterion, and not an absolute one.⁷¹ The same is true of the formula  written thus in horizontal inscriptions. It is first attested in the reign of Amenemhet III, but is not at all common before the end of the Thirteenth Dynasty.⁷²

67. E.g. BM 1370, 300, 806, 353 (*Hieroglyphic Texts* V, Pls. 20, 21, 23, 46)—all early Eighteenth Dynasty. The old arrangement is rarely retained on stelae of this date: Dunham and Janssen, *Semna Kumba*, Pl. 92 (D. 24-5-1); Bosticco, *Stele Egiziane del Nuovo Regno*, no. 35; J. Garstang, *El Arâbah* (London 1901), Pl. 22 (E 193, with name of Tuthmosis I).

68. Cf. Gardiner, *Egyptian Grammar*³, p. 27, n. 4; also *ÄZ* 45 (1908), 123 ff. and G. A. Reisner, *Excavations at Kerma IV-V* (*Harvard African Studies* 6 [Cambridge, Mass., 1923]), p. 509 (32 e).

69. N. de G. Davies *The Tomb of Antefoker* (London 1920), Pl. 5; Newberry, *Beni Hasan I*, Pl. 25, line 70; Cairo CG 20538 (I c 8).

70. *Egyptian Studies I: Varia*, Pt. 10 (3).

71. *Ibid.*, Pt. 6.

72. C. J. C. Bennett, *JEA* 27 (1941), 157; in his longer article in the same volume, pp. 77-82, Bennett takes account of the proportionate incidence of changes in the funerary formula, as also in *JEA* 44 (1958), 120-121.

To take an extreme case of the relative incidence of datable features, one may consider the late date which Helck has proposed for the Palermo Stone, which he regards as a Twenty-fifth Dynasty copy, analogous to the Shabako Stone.⁷³ The latter displays many anachronisms, however, and Junge has recently made a good case against its presumed antiquity.⁷⁴ As for the Palermo Stone, it shows *none* of the anachronisms that would inevitably appear in a later copy, and one may doubt that any product of the archaistic revival was ever that faithful to so remote an original, even if the original was hieroglyphic.⁷⁵ Such a conclusion is quite impossible if we assume that the Palermo Stone was copied from hieratic, or from semi-cursive hieroglyphs.⁷⁶ The textual errors, such as they are, can be explained in terms of a Fifth Dynasty edition of records, which may go back as much as seven centuries earlier.

Although a comparative study of forms derived from semi-cursive hieroglyphs may not in itself seem very useful for dating, it does tell us what we may expect to find on many inscribed objects of the kind that

73. *MDIK* 26 (1970), 83–85. The one feature that links the two documents is the fact that they are inscribed on hard dark stone. But that type of stone was at least occasionally used in the Old Kingdom, as shown by Cairo CG 1431—the inscription of *Dru*, from Abydos. In the latter case the choice of material was evidently dictated by the fact that the monument was placed in a temple, and the same explanation may likewise be applicable to the Palermo Stone.

74. Friedrich Junge, *MDIK* 29 (1973), 195–204. He convincingly argues that the Memphite Theology is a late work couched in archaistic language and orthography; but it is more difficult to follow him in dating the work to Shabako himself. The “wormeaten” state of the purportedly earlier text is evidently confirmed by occasional lacunae, including the omitted line 5 and lesser omissions in lines 6, 7, 12b, 53 and 61, even if some of these lacunae (end of lines 7 and 53) may have been misplaced. Although Junge mentions the last two cases (p. 196 and n. 8) as examples of “unmotiviert” spacing, he does not specifically consider the point in question.

75. Cf. the Dyn. XXVI copy of a Dyn. VI text in Davies, *Deir el Gebrâwi* I, Pls. 24 and 13, which shows several substitutions of later forms:  for ;  for ;  for .

76. The influence of semi-cursive writing is shown in  (R1, R3),  (R3, and similarly the fragment published by Gauthier in G. Maspero, *Le Musée Égyptien* III [Cairo 1915], Pl. 30 [Fig. 1]),  (*ibid.*, Pl. 31),  (R3, R6),  (Gauthier, *op. cit.*, Pl. 30 [1] and R6). The most recurrent archaic form is  for  but this is attested on some early Fifth Dynasty seals (W. M. F. Petrie, *Scarabs and Cylinders* [London 1917], Pl. 9 [5.1, 5.2]; P. E. Newberry, *Scarabs* [London 1906], Pl. 5 [1, 2, 3, 5, 7, 8]), and it was probably still familiar to the later part of the dynasty; the fact that this occurs in the earlier entries, while  appears in the Fifth Dynasty entries of the verso, might indicate that the texts were copied in two stages (Dyn. IV and V) as E. V. Tchernozov has argued (*Drevnej Egipet* [Moscow 1960], pp. 261–272).

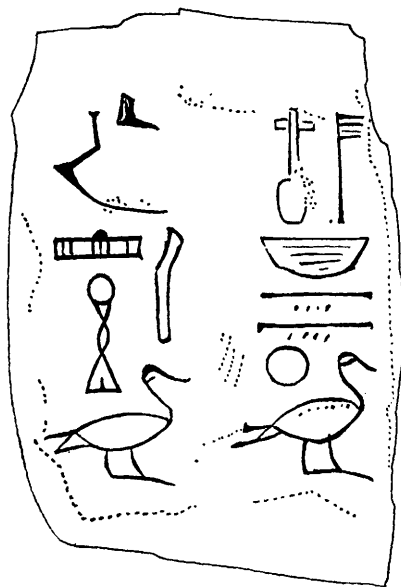


Fig. 5

are likely to turn up in excavations. And, as the tabulation grows more complete, it may at least enable us to gauge the **authenticity** of this kind of material when the provenance is unrecorded. One example is the “puzzling and obscure inscription” published by Goedicke in *JEA* 45 (1959), 98–99, which, at first sight, seems to conform very satisfactorily to the style in question (Fig. 5). But a closer look reveals several disconcerting features: the uncertain curve of $\curvearrowright$, the appearance of four dots in $\equiv$, the oddly formed head and body of 𓆎 , and the peculiar top of 𓆏 . In view of the inexplicable content of the inscription, one might consider whether the signs have not been copied fairly recently from part of an ancient original. That conclusion is certainly to be applied to a small ointment slab in the Kofler-Truniger Collection, which seems to have been copied from several sources (Fig. 6).⁷⁷ One of the sources is evidently Firth and Gunn, *Teti Pyramid Cemeteries* II, Pl. 13 (d), where a similar slab shows the same peculiar spelling of $n\dot{h}nm$ as $n\dot{s}nm$, with $\dot{s}$ written $\equiv$, while the $\dot{s}$ -sign of 𓆏 is more normal in shape and is written $\equiv$. Several of the other signs are less authentic—especially 𓆎 ; the striations in this sign are very occasionally diagonal, instead of vertical, in Old and Middle Kingdom semi-cursive writings of 𓆎 , but they are slanted the other way in inscriptions reading right to left: 𓆎 .⁷⁸

77. H. W. Müller, *Ägyptische Kunstwerke, Kleinfunde und Glas in der Sammlung E. und M. Kofler-Truniger, Luzern* (Berlin 1964), A 87; the inscriptions on the accompanying headrest must similarly be condemned. It should also be noted that, in both cases, the writing of the masculine name $\text{𓆎} \text{𓆏} \text{𓆎}$ (var. $\text{𓆎} \text{𓆏} \text{𓆎}$) is most peculiar; it cannot be $Nfr-m\dot{s}t$ (*PN* I, 196 [18]) or $M\dot{s}-nfr$ (*PN* I, 143 [14]). The headrest is also illustrated in I. Woldering, *Gods, Men and Pharaohs* (Fribourg, n.d.), p. 238 (90).

78. Dyn. VI: Janssen, *JEOL* 12 (1951–52), Pl. 33 (N 141), and *LD* II, Pl. 117 (l, w). Middle Kingdom: G. Brunton *et al.*, *Qau and Badari* (London 1927) I, Pl. 41 (6, 7); Petrie, *Kahun, Gurob, and Hawara*, Pl. 10 (1). Dyn. XIII: Gardiner, *JEA* 41 (1955), several examples: e.g. Pl. 5. In seeking such evidence, one must allow for the fact that many Egyptologists are influenced by

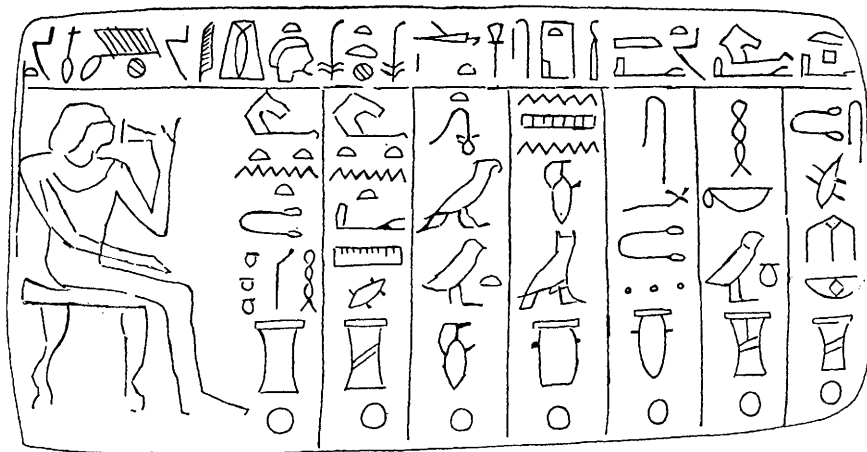


Fig. 6

The study of hieroglyphic palaeography is equally useful in detecting all other forgeries that bear inscriptions, since the forger in most cases will have given less attention to the details of the hieroglyphs than to the other aspects of his work. But it must be kept in mind that any combination of new and ancient features may occur in a monument that has been purchased rather than excavated. A genuine piece may acquire a fraudulent inscription, designed to enhance its appearance or its historical importance. And a genuine inscription may be found on a piece that has been recarved or supplemented for the same purpose.⁷⁹

the late Theinhardt form instead of the earlier form with horizontal striations; I suspect the apparent example in Junker, *Gtza* VI, p. 243, Fig. 103.

79. All of these possibilities are discussed in *MMJ* 9 (1974), 5-34.

Abbreviations

<i>AJA</i>	<i>American Journal of Archaeology</i> , Princeton, New Jersey.
<i>ASAE</i>	<i>Annales du Service des Antiquités de l'Égypte</i> , Cairo.
<i>ÄZ</i>	<i>Zeitschrift für ägyptische Sprache und Altertumskunde</i> , Leipzig and Berlin.
Bernand, <i>Les Inscriptions grecques de Philae</i>	A. and E. Bernand, <i>Les Inscriptions grecques (et latines) de Philae</i> , 2 vols. Paris 1969.
<i>BIFAO</i>	<i>Bulletin de l'Institut français d'Archéologie orientale</i> , Cairo.
Bisson de la Roque, <i>Trésor de Tôd</i>	See C G + number.
Blackman, <i>Meir</i>	A. M. Blackman and M. R. Apted, <i>The Rock Tombs of Meir</i> , 6 vols. London 1914–1953.
BM	British Museum, London.
<i>BMFA</i>	<i>Bulletin of the Museum of Fine Arts</i> , Boston.
<i>BMMA</i>	<i>Bulletin of The Metropolitan Museum of Art</i> , New York.
Calverley, <i>Temple of King Sethos I at Abydos</i>	A. M. Calverley, assisted by M. F. Broome, <i>The Temple of King Sethos I at Abydos</i> , 4 vols., ed. by A. H. Gardiner. London-Chicago 1933–1958.
CG + number	Monuments in the Egyptian Museum, Cairo; numbers referring to <i>Catalogue général des antiquités égyptiennes du Musée du Caire</i> :
CG 1295–1808:	Ludwig Borchardt, <i>Denkmäler des Alten Reiches I–II</i> (Berlin 1937–64);
CG 20001–20780:	H. O. Lange and H. Schäfer, <i>Grab- und Denksteine des Mittleren Reichs I–IV</i> (Berlin 1902–25);
CG 28001–28126:	P. Lacau, <i>Sarcophages antérieurs au Nouvel Empire I–II</i> (Cairo 1904–06);
CG 34001–34189:	P. Lacau, <i>Stèles du Nouvel Empire I–II</i> (Cairo 1909–1926);
CG 70501–70754:	F. Bisson de la Roque, <i>Trésor de Tôd</i> (Cairo 1950).
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<i>Hieroglyphic Texts</i>	<i>Hieroglyphic Texts from Egyptian Stelae, etc., in the British Museum</i> , 8 parts. London 1911-1939.
<i>ILN</i>	<i>The Illustrated London News</i> , London.
J + number	Monuments in the Egyptian Museum, Cairo; unpublished unless otherwise noted.
<i>JAOS</i>	<i>Journal of the American Oriental Society</i> , Baltimore.
<i>JARCE</i>	<i>Journal of the American Research Center in Egypt</i> , Princeton.
<i>JEA</i>	<i>Journal of Egyptian Archaeology</i> , London.
<i>JEOL</i>	<i>Jaarbericht van het Vooraziatisch-Egyptisch Genootschap Ex Oriente Lux</i> , Leiden.
<i>JNES</i>	<i>Journal of Near Eastern Studies</i> , Chicago.
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Lacau, <i>Sarcophages antérieurs au Nouvel Empire</i>	See CG + number.
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LD	C. R. Lepsius, editor, <i>Denkmaeler aus Aegypten und Aethiopien</i> , 12 vols. Berlin 1849–1859.
MDIK	<i>Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo</i> , Wiesbaden.
<i>Mém. Miss. fr.</i>	<i>Mémoires publiés par les membres de la Mission Archéologique française au Caire</i> . Paris.
MIFAO	<i>Mémoires publiés par les membres de l'Institut français d'Archéologie orientale</i> , Cairo.
MMA	The Metropolitan Museum of Art, New York.
MMJ	<i>Metropolitan Museum Journal</i> , New York.
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PN	H. Ranke, <i>Die Ägyptischen Personennamen</i> , 2 vols. Glückstadt 1935, 1952.
<i>Rec. trav.</i>	<i>Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes</i> , Paris.
Wb.	A. Erman and H. Grapow, editors, <i>Wörterbuch der Ägyptischen Sprache</i> , 5 vols. Leipzig 1926–1931.
ZDMG	<i>Zeitschrift der Deutschen Morgenländischen Gesellschaft</i> , Wiesbaden.

